Health Research & Development Grants 1990-1991

Program Overview

Ministry of Health

Ontario

92-02941/

Contents

Foreword 1

Introduction 2

Health Care Systems Research 2

Health System-Linked Research Units 2

Health Research Personnel Development 2

Trillium Clinical Scientist Award 3

Emergency Health Services Research 3

Peer-Review Process 3

Statutory Foundations 3

Appendix 1 – Research Projects 5

Appendix 2 – Research Dissemination 17

Appendix 3 – Research Units 21

Appendix 4 – Research Personnel 25

Appendix 5 – Health Research Personnel Development Program Review 1988 Executive Summary 37

Appendix 6 – Emergency Health Services Research 41

Appendix 7 – Review Committees 45

Appendix 8 – Addiction Research Foundation 49

Appendix 9 – Ontario Mental Health Foundation 57

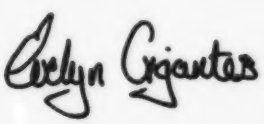
Index of Research Keywords 66

Foreword

As I begin my term as Minister, I look forward to meeting the urgent challenges facing Ontario's health care system today. To succeed, we will need comprehensive, reliable and relevant information about health care, the kind of information generated through the research programs described in this Program Overview.

It gives me pleasure to present this record of achievement in health care research in Ontario, and to acknowledge the contributions of all our partners in this important endeavour – individual researchers, review committees, universities and hospitals where most research takes place, and foundations and other agencies which share in funding.

In the coming months, as we guide the development of a comprehensive and sensitive health care system for all Ontarians, I know we can rely on the vital contributions made by our dedicated and productive research community.



Evelyn Gigantes
Minister

INTRODUCTION

The Ministry has been involved with direct grants to support health research since the 1960s, and indirectly, through the statutory foundations, going back to the 1930s. Currently the Ministry provides support to health research in Ontario through competitive peer-review research grants programs, special grants for corporate research concerns and contributions to statutory foundations' independent research programs. In all, $31 million will be spent by the Ministry on research and development activities this year.

HEALTH CARE SYSTEMS RESEARCH

Through this program, the Ministry provides support to individual research projects which evaluate aspects of the health care system, with a view to improving effectiveness, efficiency and accessibility. Working within a multidimensional framework of health care goals, the Ministry seeks scientific information to evaluate current programs, monitor progress, and guide policy development.

Among the projects funded this year, themes of support can be identified which address the main dimensions of the Ministry's current research priorities: the health goals formulated by the Premier's Council on Health Strategy; specialized areas where demand for treatment is high; target groups requiring special attention; and health system analysis, including technology assessment and utilization, and new methodologies for decision-making.

A total of $5,263,694 has been awarded to 63 major research projects, which are described in Appendix 1. An additional $89,856 has been granted this year to 10 feasibility/formulation studies, to assist in the development of research projects.

The Ministry also supports the dissemination of research findings to the health care system, through grants for conferences and seminars. A total of $79,334 has been awarded to 14 conferences this year. The conferences are listed in Appendix 2.

HEALTH SYSTEM-LINKED RESEARCH UNITS

This new program was launched in 1989, to facilitate and accelerate research leading directly to improvements in the provision of health services. Through the program, sustained core support is provided to multidisciplinary teams of investigators, linked to partner agencies active in the health care system.

A total of $2,683,156 was awarded to six research units this year. Details of the units are given in Appendix 3. In addition, the Ministry is currently providing $460,000 to the Centre for Health Economics and Policy Analysis at McMaster University, a research unit focusing on health economics and policy issues of concern to the Ministry.

Prior to the implementation of the new program, the Ministry contributed over $10 million dollars, during the past 20 years, to units at the health sciences centres, which offered a consultation service on health research methodology, conducted projects, and provided graduate training in health services research. These units are being phased out, and the funds redirected to the new program. Current funding totalling $201,899 has been awarded this year, to assist these units through the transitional phase.

HEALTH RESEARCH PERSONNEL DEVELOPMENT

In 1982, this program was introduced to provide personal support and career stability for new clinical and community health researchers in Ontario.

Awards are given to individuals engaged in health research programs either as trainees, at the graduate student or post-graduate level, or as independent investigators at the early stage of their career.

This year a total of $3,250,433 has been awarded to 65 Career Scientists, and $624,570 for 33 Fellowships. Details for these awards are presented in Appendix 4.

In 1987 and 1988, special block funds totalling $5 million were awarded to the five health sciences centres, for the long term support of 23 additional Career Scientists focusing on community health, nursing and rehabilitation research areas. These Career Scientist awards are included in Appendix 4.

This year, the peer-review committee associated with the Health Research Personnel Development Program completed a review of program performance, and prepared a "Report on the Health Research Personnel Development Program Review 1988".

As a result of their review, the committee recommended continuation of this successful program, with additional resources to enhance research development in nursing and rehabilitation areas.

The Executive Summary of the Report is given in Appendix 5.

TRILLIUM CLINICAL SCIENTIST AWARD

Presented annually, this award is to honour a distinguished clinical scientist working in Ontario, in recognition of outstanding accomplishments in clinical research, and contributions to the enhancement of Ontario's health care system.

The award to the Trillium Clinical Scientist is a specially-commissioned bronze sculpture, and matching lapel pin. A grant of $250,000 is also made, in the name of the Trillium Clinical Scientist, to the winner's sponsoring Health Sciences Centre, to be used for clinical research development.

Dr. Vladimir Hachinsky, Department of Clinical Neurosciences, at the University of Western Ontario, won the 1990 Trillium Clinical Scientist Award for his research in cerebrovascular diseases, particularly the relationship between heart attacks and strokes, and the causes of Alzheimer's dementia.

EMERGENCY HEALTH SERVICES RESEARCH

This special program was established in 1987 to facilitate research in emergency health care services. A total of $229,465 has been awarded this year, to eight research projects, which are described in Appendix 6, and an additional $3,410 has been granted for two feasibility studies.

In 1990, the program also co-sponsored a research workshop, with the Canadian Association of Emergency Physicians, to stimulate interest in emergency care research, and to improve clinicians' research skills.

PEER-REVIEW PROCESS

Submissions for funds for research projects, units and personnel are made in open competitions at prescribed times during the year. They are assessed by standing program committees of health research professionals, from outside government, who are expert in research methodology, clinical and community health areas.

The members of the committees reviewing and recommending the grants described in this Overview are presented in Appendix 7.

STATUTORY FOUNDATIONS

The Ministry makes a major contribution annually to the research programs of its three statutory foundations, the Addiction Research Foundation, the Ontario Cancer Treatment and Research Foundation, and the Ontario Mental Health Foundation. Awards for this year are:

Addiction Research Foundation	$3,354,800
Ontario Cancer Treatment and Research Foundation	$4,628,100
Ontario Mental Health Foundation	$2,797,000

In addition, an annual contribution of $150,000 is awarded to the Heart and Stroke Foundation of Ontario.

In Appendix 8, descriptions are given for current projects under way at the Addiction Research Foundation, which deal with population trends in alcohol and drug abuse, risk factors, prevention programs, treatment and rehabilitation services. The Foundation also develops and evaluates clinical treatment protocols, and carries out biomedical research into the etiology of dependence, the damage caused by abuse, and better methods to detect problems.

The scope of research supported by the Ontario Mental Health Foundation is indicated in Appendix 9, where currently-funded research projects are described. The Foundation also supports research conferences and provides personal awards to researchers.

The foundations prepare their own annual reports and further details of their research activities may be obtained directly from them.

Appendix 1

Research Projects

COMMUNITY-BASED CARE

DR. MOIRA A. STEWART

Dr. Carol W. Buck
Dr. Allan P. Donner
Dr. Samuel Noh

University of Western Ontario
Interrelationships Between Social Support and Health
Social support is considered an important influence on a person's health, either directly or by acting as a buffer against the impact of stressful life events. This study proposes also to test the reverse causal hypothesis and will assess the influence of emotional and physical health, and personality on the acquisition of social support by newcomers to a town.
1990-91 Award: $62,153
Awarded to date: $222,804

DR. IAN G. MANION

Dr. Daniel L. Keene
Dr. Patrick J. McGrath
Dr. John T. Goodman
Dr. Peter Humphreys

Children's Hospital of Eastern Ontario
Parent Training for Families with Epileptic Children
Epileptic children and their families often experience psychosocial adaptation problems. This study will evaluate the effectiveness of a behavioural training program for parents of epileptic children with early behavioural problems. The program will teach parents child management techniques and assess the effectiveness through data collected on parent and child behaviours. Parents in the experimental group will be compared with a control group.
1990-91 Award: $56,631
Awarded to date: $275,739

DR. DOROTHY M. PRINGLE

Prof. E. Anne Mohide
Dr. David L. Streiner
Ms Gayle B. Burns

University of Toronto
Development and Testing of a Respite Index Scale
Respite care is increasingly being advised for family caregivers of individuals with dementia. The goal of this study is to develop a scale of which will measure and quantify the effectiveness of respite.

Thirty caregivers will be interviewed to ascertain the range of ways in which different types of respite are found to be helpful. Two hundred caregivers will then be asked to respond to the items generated. These results will be used to refine the scale which will then be assessed for its internal consistency, validity, stability and responsiveness.
1990-91 Award: $33,061
Awarded to date: $75,240

DR. IAN R. MCWHINNEY

Dr. Martin J. Bass
Dr. Allan P. Donner
Dr. Ake G. Blomqvist

University of Western Ontario
Palliative Care Support Team Evaluation
The Palliative Home Support Team provides a service that supports terminally ill patients, their families and their professional providers. This randomized controlled trial of early versus late assessment will determine whether the addition of the Palliative Home Support Team enhances the quality of life of the patients and their caregivers, and reduces medical care costs.
1990-91 Award: $114,728
Awarded to date: $160,266

HEALTH PROMOTION AND DISEASE PREVENTION

DR. NORMAN F. BOYD

Dr. David Tritchler
Dr. H. Lavina A. Lickley
Dr. Eve Fishell
Dr. Leo Mahoney
Dr. Gabriel M. C. Cooke
Dr. James J. Rusthoven

Ontario Cancer Institute
Breast Cancer Reduction by Dietary Fat Reduction
This study will examine if a population at high risk for breast cancer can reduce its risk by decreasing fat consumption. The trial will use three hospitals in Toronto and one in Hamilton and will involve 2,100 women with extensive mammographic dysplasia. One randomly selected group, taught to reduce dietary fat to 15% of total calories, will be compared with another group instructed on a balanced diet only. These women will be monitored for 10 years, to determine the incidence of breast cancer.
1990-91 Award: $627,088
Awarded to date: $1,144,132

MS MARGARET BLACK

Ms Jenny Pleog
Dr. Brian Hutchison
Dr. Fran Scott
Dr. Stephen Walter
Dr. Larry Chambers

McMaster University
Public Health Nursing for Influenza Vaccine Acceptance
The purpose of this randomized controlled trial is to determine the impact of public health nurses promoting influenza immunization, on rates of influenza vaccination among older clients in Hamilton-Wentworth. The study will also determine whether the response to the intervention differs between client subgroups with and without high risk conditions, and the extent to which clients perceive that the public health nurse influenced them.
1990-91 Award: $25,246
Awarded to date: $25,246

DR. MARTIN J. BASS

Ms Diane Lemaire
Dr. Susan McNair
Dr. Mark Speechley

University of Western Ontario
Comparing Counselling Strategies for Cholesterol Reduction
The purpose of this study is to examine the relative effectiveness of three approaches to lowering cholesterol: (1) physician counselling with pamphlet; (2) physician counselling with pamphlet followed by dietitian-led group discussion; and (3) physician counselling with pamphlet, group instruction and subsequent physician follow up. Eligible patients will be randomly allocated to one of the three groups and assessed for total serum cholesterol, intake of fat cholesterol, perceived control over health and concern about health and cholesterol. The study will then determine the best combination of existing health care personnel for cholesterol reduction.
1990-91 Award: $27,019
Awarded to date: $27,019

DR. ALEXANDER G. LOGAN

Dr. Marilyn J. Irvine

Mount Sinai Hospital
Screening for Hypercholesterolemia
This study will evaluate the effectiveness of two interventions, dietary counselling at the worksite and referral to family physicians, to determine whether cholesterol levels decrease due to such interventions. Results from the control and experimental groups will be compared at baseline and a follow-up. An opinion survey of physicians treating such patients will be conducted to determine the link between self-reported practice and patient management. The overall goal is to improve care given.
1990-91 Award: $169,053
Awarded to date: $522,860

DISABILITY AND REHABILITATION

DR. ROGER S. GOLDSTEIN

Dr. Monica Contreras
Dr. Gordon H. Guyatt
Dr. David G. Stubbing

West Park Hospital
Controlled Trial of Respiratory Rehabilitation
Chronic obstructive pulmonary disease is a major health problem which can cause disability and death from respiratory failure. This study will assign 60 patients to a treatment or control group. The treatment consists of in-patient rehabilitation, then out-patient follow up. The control group will receive conventional care. The groups will be compared in exercise tolerance, quality of life and health care costs.
1990-91 Award: $89,139
Awarded to date: $280,292

DR. SAROJ SAIGAL

Dr. Peter P. Szatmari
Dr. Peter L. Rosenbaum
Dr. Dugal Campbell

McMaster University
Learning Disabilities in Low Birthweight Children
This study proposes to determine the predictive value of early identification of learning disabilities (LD) as assessed by a screening device in children aged five years, for subsequent academic problems encountered at age seven years. If children at risk for LD can be identified at the earlier assessment, then appropriate remedial intervention can be considered to assist the children to achieve their best potential.
1990-91 Award: $19,316
Awarded to date: $36,378

MS MARY LAW

Dr. Peter Rosenbaum
Dr. Stephen Walter
Ms Carol Ann DeMatteo
Ms Diane Russell

McMaster University
Neurodevelopmental Therapy plus Casting for Cerebral Palsy
The purpose of this study is to evaluate the combined effect of intensive neurodevelopmental therapy and casting in improving hand function, quality of upper extremity movement, and range of motion in children 18 months to four years of age who have cerebral palsy. A randomized crossover design will be used to evaluate the difference between the intensive neurodevelopmental therapy plus casting, and a regular occupational therapy program. The results of this trial will help to further define types of therapy which are most beneficial in the treatment of cerebral palsy.
1990-91 Award: $84,685
Award to date: $84,685

DR. HARESH KIRPALANI

Dr. Peter Rosenbaum
Dr. Patricia Parkin

McMaster University
Quality of Life and Parental Attitude in Myelomeningocele
Myelomeningocele (MMC) is a common spinal anomaly resulting in wide range of medical and social problems. The objectives of this project are to develop two quality of life measures which are disease specific for use in MMC and to assess their association with the standard Newborn Neuro-physical Examination. The measures are a Quality of Life scale in individuals with MMC, and a measure of Parental Life Attitudes in the parents of individuals with MMC.
1990-91 Award: $10,773
Awarded to date: $10,773

DIAGNOSIS AND TREATMENT

DR. MARY C. TIERNEY

Mr. Alvaro Nores
Dr. E. V. Dunn
Dr. Carole Cohen
Dr. W. G. Snow
Dr. R. H. G. Fisher

Sunnybrook Health Science Centre
Assessment Battery for Diagnosis of Alzheimer's Disease
The goal of the proposed study is to assess the capacity of a brief test battery to discriminate among individuals with early Alzheimer's, and individuals with other dementing illnesses. The current methods used to investigate dementing illnesses are time consuming and expensive, and a brief test battery will be more efficient and cost effective.
1990-91 Award: $60,670
Awarded to date: $60,670

DR. DAFNA D. GLADMAN

Dr. Vernon T. Farewell

Women's College Hospital
Prognostic Indicators in Psoriatic Arthritis
Psoriatic arthritis is an inflammatory arthritis associated with psoriasis which may affect 1% of the population. The purpose of this proposal is to identify markers for severe disease in psoriatic arthritis in order to design a rational approach to treatment in this disease. A focus of the proposed investigation is the change in damage over time, and the progression of damage.
1990-91 Award: $22,990
Awarded to date: $33,990

DR. GEOFFREY R. NORMAN

Dr. Lee R. Brooks
Dr. Donald Rosenthal

McMaster University
Observer Variation in Dermatologic Diagnosis
The purpose of this two part study is to explore the proposition that errors made in diagnosing dermatological conditions are a result of the influence of prior similar cases. The study will examine the influence of prior exposure on diagnostic accuracy and response time and whether the influence is restricted to similarly-appearing cases or to all cases in a certain diagnostic category. The results of this study may have implications for the instruction methods used in dermatology.
1990-91 Award: $8,911
Awarded to date: $76,642

DR. CHRISTOPHER A. MCCULLOCH

Dr. Jaroslav Sodek

University of Toronto
Study of Collagenase in Early Diagnosis of Periodontitis
The goal of this project is to test a procedure that may permit early diagnosis of active periodontitis. Studying a sample of 90 individuals with a wide spectrum of mild and severe, and treated and untreated disease, the reproducibility, sensitivity, and specificity of gingival collagenase (an enzyme found in the gum tissue) measurements in the diagnosis of periodontitis will be examined. If gingival collagenase is found to be an accurate and reliable test for active periodontitis, then early diagnosis could lead to early and less costly surgical treatment.
1990-91 Award: $99,169
Awarded to date: $212,938

DR. ROBIN S. MCLEOD

Dr. Zane Cohen
Dr. Gordon R. Greenburg
Dr. Khursheed N. Jeejeebhoy

Toronto General Hospital
Effectiveness of ASA in Reducing Crohn's Disease Recurrence
Crohn's disease is a non-specific inflammation of the intestinal tract which may affect about 50,000 to 100,000 people in Canada. Ultimately most patients require surgery. Following surgery, it is estimated that disease will recur at a rate of approximately 10% per year. This study will determine if drug treatment with 5-aminosalicyclic acid is effective in preventing or delaying the recurrence of Crohn's disease in patients who have undergone surgery.
1990-91 Award: $43,747
Awarded to date: $309,257

DR. PATRICIA A. MCGRATH

Dr. George G. Hinton
Dr. James E. Boone
Dr. Allan P. Donner

University of Western Ontario
Management of Recurrent Headaches in Children
This study is a randomized controlled trial to evaluate the efficacy of a cognitive-behavioural pain program for reducing the intensity and frequency of headaches in children with recurrent migraine or tension headaches. The program was designed to modify the situational, emotional, and familial factors that had been identified as contributing to the maintenance of the recurrent headache syndrome in a preliminary study.
1990-91 Award: $46,605
Awarded to date: $262,675

PROFESSOR MARY L. CHIPMAN

Dr. Prasanta K. Basu
Dr. Paul M. H. Cherry
Dr. Allan R. Slomovic
Ms Anne M. Wolf

University of Toronto
Outcome of Corneal Transplant Registry Participants
The Corneal Recipient Registry collects information on patients and donors from all parts of Ontario. This project will examine the information with a goal of investigating means of improving the success rates for patients and the quality of donor tissue provided by physicians.
1990-19 Award: $77,921
Awarded to date: $209,820

DR. JOHN G. KELTON

Ms Nancy M. Heddle
Dr. Joel Singer

McMaster University
Improving Post Tranfusion Platelet Recovery
In this study, adults receiving induction or consolidation treatment for leukemia will be randomized to receive Rh Immune Globulin (RhIg) or placebo. The hypothesis is that the use of RhIg will result in a higher post transfusion platelet recovery for a longer period of time. This will result in the patient requiring fewer platelet transfusions during treatment and being at a lesser risk of bleeding.
1990-91 Award $35,285
Awarded to date: $54,055

CANCER

DR. WILLIAM R. BRUCE

Dr. Hartley S. Stern
Dr. Garry A. Neil
Dr. David J. A. Jenkins

Ontario Cancer Institute
Dietary Starch, Colon Fermentation and Colon Cancer Risk
This study will examine the effects of increased carbohydrate fermentation in the colon as a risk factor for cancer. The measurement tool for cancer risk will be the amount of epithelial cell proliferation. Measurements will be taken from two groups of subjects, those who have polyps, and those who have not. Both groups will be given either a diet providing low or high carbohydrate fermentation. Each of the resulting four groups will be tested for the degree of colonic fermentation and colonic polyp proliferation to determine if colonic fermentation is a risk factor for colon cancer.
1990-91 Award: $73,862
Awarded to date: $362,663

DR. LORRAINE D. MARRETT

Mrs. Hannah K. Weir

University of Toronto
Etiology of Malignant Germ Cell Tumours in Ontario
This case-control study is designed to determine the factors associated with the development of malignant germ cell tumours. Case subjects will be compared with a control group comprising a random sample of the Ontario population with an age and sex distribution similar to that of case subjects.
1990-91 Award: $116,039
Awarded to date: $313,184

DR. NANCY KREIGER

Dr. Murray Finkelstein
Mr. Paul Beck

University of Toronto
Bone Cancer in Young People with Radiation Exposure
This population-based case-control epidemiological study of people age 25 years or younger will provide information on the risk of bone cancer associated with radium content in drinking water. It will also address the risks associated with other factors, including prenatal and early childhood exposures.
1990-91 Award: $113,891
Awarded to date: $310,471

DR. LORRAINE D. MARRETT

Dr. Gregory J. Sherman

Ontario Cancer Treatment and Research Foundation

Congenital Anomalies in the Offspring of Cancer Patients

This case-control study will determine whether the offspring of former cancer patients are at an increased risk of having a congenital anomaly diagnosed during the first year of life, and whether risk is related to the type of cancer therapy received by the parents. Cases consist of parents of children born between 1979 and 1986 and recorded in the Ontario portion of the Canadian Congenital Anomalies Surveillance System. Controls consist of random samples of parents of children born in Ontario between 1979 and 1986. Diagnoses of cancer in case and control parents will be identified by record linkages with the Ontario Cancer Registry.

1990-91 Award: $44,430
Awarded to date: $193,377

DR. MAUREEN E. TRUDEAU

Dr. Kathleen I. Pritchard
Dr. Irene L. Andrulis
Dr. Wedad H. Hanna
Dr. H. Lavina A. Lickley
Dr. G. Elizabeth Mobbs
Dr. David Murray
Dr. Carol A. Sawka
Dr. Judith-Anne W. Chapman

University of Toronto

Prognostic Variables to Predict Relapse and Survival in Women with Axillary Node Negative Breast Cancer

The purpose of this study is to analyze the factors that influence breast cancer recurrence and death in women with axillary node negative breast cancer. Using a database of 432 women who have undergone primary breast cancer surgery, analysis will be directed to three variables: Neu oncogene, cell kinetics, DNA content. Other factors believed to be important in predicting relapse and/or death, e.g. tumour size, will also be included in the analysis. The goal of this study is to further identify subgroups of axillary node negative women who are at differing risks of developing recurrent breast cancer and/or dying from breast cancer.

1990-91 Award: $47,433
Awarded to date: $146,998

DR. IRENE L. ANDRULIS

Dr. Martin E. Blackstein
Dr. Shelley B. Bull

Mount Sinai Hospital

Prognostic Value of Oncogene Amplification in Node Negative Breast Cancer

At the present time there is no good prognostic indicator for recurrence of breast cancer. Therefore a prospective study to examine Neu oncogene amplification and over expression of the epidermal growth factor receptor in node-negative breast cancer is proposed. The results are to be correlated with the clinical course of the disease to determine if these molecular markers can be used to predict relapse.

This would potentially enable chemotherapy or hormonal treatments to be used for only those patients with the greatest risk of recurrence.

1990-91 Award: $151,134
Awarded to date: $303,830

DR. HILARY A. LLEWELLYN-THOMAS

Ms Heather J. Sutherland

Ontario Cancer Institute

Patients' Evaluations of Projected and Actual Health States

The purpose of this project is to determine if cancer patients' judgements of the desirability of health states that they are likely to encounter during therapy, are comparable to their judgements when they actually enter one of these states during the process of treatment. If the results indicate that values obtained from patients for an anticipated health state are unstable, this will raise questions about the appropriateness of using these values in formal decision analytic models, and about the ethical requirement to inform patients ahead of time that their judgement of the desirability of a future health state will probably change.

1990-91 Award: $18,683
Awarded to date: $27,145

DR. ROBERT S. BELL

Dr. I. L. Andrulis
Dr. M. E. Blackstein
Dr. S. B. Bull
Dr. P. J. Goodwin
Dr. S. J. Keating

Mount Sinai Hospital

Gene Expression and Treatment Outcome for Osteosarcoma

The applicants propose a multi-centre study to investigate the hypothesis that bone cancer patients with low levels of the Multiple Drug Resistance Gene (MDR-1) will respond better to drug treatment, and be more likely to survive than patients with tumours that express high levels of the MDR-1 gene. If the patients resistant to conventional drug therapy can be identified, then strategies to overcome drug resistance can be developed, and treatment improved.

1990-91 Award: $54,087
Awarded to date: $54,087

DR. STEPHEN D. WALTER

Dr. Lorraine D. Marrett
Dr. Stuart M. Taylor
Dr. John A. Davies
Dr. Michael W. Hayes
Dr. John J. Drake

McMaster University

Geographic Variation in Ontario Cancer Rates

This study proposes to examine the spatial distribution of cancer occurrence over time in Ontario, to evaluate if certain regions throughout the province have significantly elevated cancer rates. As well, the study will examine the quality of data collected by the Ontario Cancer Registry, especially for accuracy and completeness. Finally, the study will determine the feasiblity of linking geographic information on cancer with complementary data on environmental quality factors.

1990-91 Award: $42,767
Awarded to date: $178,968

CARDIOVASCULAR DISEASE

DR. CARL E. ELLIS

Dr. Alexander G. Logan

Mount Sinai Hospital
Hypertension Control at Worksite
This study will test a program conducted jointly by voluntary health agencies and a public health unit, to prevent and control hypertension and cardiovascular disease among blue collar workers. In the first phase, the value of measuring blood pressure at the worksite on one versus two occasions before referring those with a high reading to a physician will be assessed. The amount of follow-up required by the screener to ensure proper referral to the physician will also be determined. In the second phase, workers still having uncontrolled high blood pressure will be offered a series of public health nurse home visits to teach the worker and family practical ways to control high blood pressure through lifestyle changes if relevant, medication if needed, and regular physician follow-up.
1990-91 Award: $107,310
Awarded to date: $676,462

DR. JOHN B. GILL

Dr. Ernest L. Fallen
Dr. Debbie M. Hastings
Dr. John A. Cairns
Mr. Robin S. Roberts

McMaster University
Silent Myocardial Ischemia
Survivors of a heart attack have a relatively high one year mortality rate, and frequently have abnormal exercise electrocardiograms. The purpose of this study is: to define the frequency of silent ischemia, and to determine whether or not it is important in predicting who will have a subsequent cardiac event; and to determine the incremental prognostic value of painless myocardial ischemia, over and above the prognostic value of exercise testing.
1990-91 Award: $98,360
Awarded to date: $148,758

DR. T. DOUGLAS BRADLEY

Dr. Peter P. Liu
Dr. R. S. Goldstein

University of Toronto
Treating Congestive Heart Failure by Airway Pressure
The proposed study will conduct a randomized controlled trial of continuous nasal positive airway pressure as a form of out-patient therapy for congestive heart failure. The investigators hypothesize that by unloading the heart with continuous positive airway pressure during sleep, hypoxia associated with Cheyne-Stokes respiration will be prevented and cardiac function will subsequently improve in the daytime.
1990-91 Award: $51,147
Awarded to date: $51,147

DR. TERRENCE RUDDY

Dr. Neil McPhail
Dr. James E. Calvin

University of Ottawa – Heart Institute
Predicting Cardiac Risk of Vascular Surgery
The purpose of this study is to compare the 24-hour ECG Holter monitoring test for silent ischemia with dipyridamole thallium imaging for prediction of cardiac risk in patients undergoing vascular surgery. Holter monitoring is much less expensive and has no radiation or risk. It is hypothesized that the predictive value of Holter monitoring will be similar to dipyridamole thallium imaging and that Holter monitoring will become the test of choice.
1990-91 Award: $65,485
Awarded to date: $65,485

TRAUMA

DR. DAVID E. WESSON

Dr. Charles Netley
Prof. Mary L. Chapman

Hospital for Sick Children
Effects of Severe Injuries on Children
This study will examine the effects of sudden unexpected illness or injury on children and their families. The focus of the research will be the long term physical and psychological reactions to the event, including the child's physical health, school performance and costs to the family in terms of time and money.
1990-91 Award: $13,454
Awarded to date: $203,876

DR. HUGH FULLER

Dr. Deborah Cook
Dr. Gordon Guyatt
Dr. Jacques Lacroix
Dr. John Marshall
Dr. Thomas Noseworthy
Dr. Luis Oppenheimer
Dr. Peter Powles

McMaster University
Study of Gastrointestinal Bleeding in Adult Patients
Patients in intensive care units are given medication to prevent bleeding. However, there is evidence to suggest that the incidence of clinically important bleeding has declined over the last decade, independent of the effect of these medications. This study sets out to examine the true incidence of clinically important bleeding from the stomach of patients not receiving these medications and to identify and predict those who are at negligible risk of bleeding. As a result, decisions regarding the use of these drugs can be made on the basis of potential for beneficial effect, with a substantial cost saving to the health care system.
1990-91 Award: $368,194
Awarded to date: $368,194

DR. MARCIA A. BARNES

Dr. Maureen Dennis

Hospital of Sick Children
Language and Reading after Closed Head Injury
The purpose of this study is to: increase knowledge of language and reading ability in children and adolescents who have sustained closed head injuries, in particular the language skills important to communication, and the reading skills important to scholastic achievement; and to identify which medical history variables related to the injury place a child at risk for impairments in language and reading. Several of the component skills of language and reading ability, associated with scholastic achievement at various ages, will be systematically tested on head injured children when they are back at school.
1990-91 Award: $30,450
Awarded to date: $39,780

DR. GUISEPPE PAGLIARELLO

Dr. Paul Hamilton

Sunnybrook Medical Centre
Diagnosis of Blunt Abdominal Trauma
The purpose of this randomized controlled trial is to determine the relative effectiveness of CT Scan and open peritoneal lavage in terms of diagnosis of abdominal injury. The two tests will be compared for their ability to prevent unnecessary abdominal surgery in trauma patients.
1990-91 Award: $67,718
Awarded to date: $67,718

AIDS

DR. RANDALL A. COATES

Dr. Mary M. Fanning
Dr. Michel Klein
Dr. Stanley E. Read
Dr. Frances A. Shepherd
Dr. Douglas K. MacFadden
Dr. Vernon T. Farewell

University of Toronto
Sexual Contacts of Individuals with ARC or AIDS
This research focuses on the health of homosexual or bisexual men who have had sexual contact with patients with AIDS or ARC (AIDS-related complex). Those who develop AIDS or ARC will be compared to those who remain healthy in an attempt to ascertain which factors increase the risk of acquiring either condition.
1990-91 Award: $216,890
Awarded to date: $1,859,398

DR. TED MYERS

Dr. Liviana Calzavara
Dr. Randall Coates
Dr. Rhonda Cockerill
Dr. Victor Marshall

University of Toronto
Survey on HIV Infection for First Nations People
The purpose of this study is to measure the knowledge, attitudes and behaviour related to HIV infection among First Nations Peoples in order to: provide information which may assist in the development of culturally sensitive HIV education material; help focus health promotion efforts in general within reserve communities; provide a baseline measure from which to assess the effectiveness of the programs; and test and develop a culturally sensitive research method which may be applied to other First Nations communities in Canada.
1990-91 Award: $49,024
Awarded to date: $49,024

ENVIRONMENTAL HYPERSENSITIVITY

DR. BRUCE POMERANTZ

Dr. Reginald M. Gorczynski
Dr. Jozef J. Krop
Dr. Lynee E. H. Trainer

University of Toronto
Food Sensitivity
The aim of the first phase of this study of environmental hypersensitivity is to establish three rigorous measures of a patient's response to food challenges, including heart rate variability, basophil degranulation, and a visual analogue scale of symptoms. A sequence of real and "sham" challenges will be given to 60 patients. A measure will be deemed successful only if patients show appropriate response to all challenges. Once measures of food sensitivity have been established, a second study phase will use them to assess several treatment modalities for hypersensitivity.
1990-91 Award: $271,129
Awarded to date: $470,049

HEALTH CARE FOR THE ELDERLY

DR. ALLAN DETSKY

Dr. Michael Silberfield

University of Toronto
Assessment of Competencies in the Elderly
Health care and maintenance of independent living for the elderly are frequently affected by medical-legal judgements of competency. There is no standardized practice used by physicians in Ontario to assess patients for general competence. This study will develop an index of competency in order to objectify, quantify and standardize clinical judgements by physicians and other health care practitioners.
1990-91 Award: $16,223
Awarded to date: $126,804

DR. ALLISON MCGEER

Dr. Andrew Simor
Dr. I. Gary Naglie

Mount Sinai Research Foundation
Temperature and Infection in Nursing Home Residents
The purpose of this study is to determine whether the baseline temperatures of some or all of the institutionalized elderly are lower than those of their younger counterparts. As well, this study should determine if it is feasible to define a "baseline" temperature for each resident. If this possible, it will permit better assessment of when that resident has a significant increase in temperature indicating infection.
1990-91 Award: $30,982
Awarded to date: $30,982

DR. DAVID W. MOLLOY

Dr. Norman Flett
Dr. Gordon Guyatt
Prof. Roberta Labelle
Prof. Alba Mitchell

McMaster University
Health Care Directives for the Elderly
The investigators propose to investigate a Health Care Directive designed to allow the elderly, chronically ill, and disabled, and their relatives to specify the level of care they wish to receive in the event of an acute illness. The study will examine patients, families and health care professionals use and satisfaction with the directive, and estimate physician compliance and changes in the pattern of resource use as a result of this innovation. The results will determine the feasibility and appropriateness of using the directives in institutions for elderly disabled individuals.
1990-91 Award: $8,276
Awarded to date: $8,276

MS JENNIFER M. SKELLY

Mrs. Patricia Caulfield
Dr. Fionnuala Killian

St. Joseph's Hospital
Maintenance of Elderly Rehab Population in the Community
The objective of this study is to identify predictors of long term maintenance in the community for elderly patients discharged from an acute care hospital Rehabilitation Unit. This study proposes to follow two groups of patients: those admitted for rehabilitation prior to discharge, and those discharged directly home. They will be followed from admission until discharge, then at one, three, six and 12 months post discharge. The study will determine if patients in both groups are functionally the same, if level of function can predict their discharge home, and if functional ability that is improved by a rehabilitation program is related to continued independent living in the community.
1990-91 Award: $38,240
Awarded to date: $38,240

DR. ROMAN JAESCHKE

Dr. Christopher Patterson
Dr. Gordon Guyatt
Dr. Hertzel C. Gerstein

McMaster University
L-Thyroxine Replacement Therapy in Hypothyroidism
This study will examine the use of L-Thyroxine replacement therapy in elderly patients with subclinical hypothyroidism. Outcome measures will include quality of life, cognitive function and bone mineral content. The study will clarify the indication for replacement therapy in elderly people with subclinical hypothyroidism, and improve the understanding of the effects of small doses of L-Thyroxine on bone mineral content.
1990-91 Award: $90,344
Award to date: $106,840

DR. NEIL MCCARTNEY

Dr. A. L. Hicks
Dr. D. G. Sale
Dr. C. E. Webber
Dr. R. S. McKelvie

McMaster University
Strength Training in the Elderly
This study will evaluate the effects of two years of strength training on muscle size and strength, bone density and exercise capacity in male and female subjects aged 60 to 80 years. The subjects will be randomized to either an experimental group (exercising) or a control group (non-exercising). The subjects will be stratified by age and sex. Despite the large losses in strength with aging there is only limited information on the underlying causes, and even less on the potential of older muscles to improve with training.
1990-91 Award: $49,018
Awarded to date: $49,018

DR. JOHN W. FEIGHTNER

Dr. Christopher Patterson
Dr. Susan M. M. Tainish
Dr. Charles H. Goldsmith
Dr. Amiram Gafni
Dr. Mary M. Edwards
Ms Alicia Butson
Dr. A. Isaac

McMaster University
Evaluation of a Geriatric Re-activation Unit
This is a randomized controlled trial to assess the effectiveness of a geriatric reactivation unit (GRU) in improving the function of frail elderly admitted to a general hospital. Eligible patients willing to participate will be randomized to the GRU or usual hospital care. The primary outcome measure, activities of daily living, and eight secondary outcomes will be assessed at randomization, at six weeks' post-randomization and at three, six and 12 months. A detailed economic evaluation will also be done.
1990-91 Award: $71,682
Awarded to date: $71,682

WOMEN'S HEALTH

DR. JOHN W. SELLORS

Dr. Max Chernesky
Dr. James Mahoney

McMaster University
Detecting Chlamydial Urethritis in Males
The purpose of this study is to determine the prevalence of asymptomatic infection due to Chlamydia Trachomatis in young sexually active men when a simple, non-invasive urine test is used for detection. One thousand men will be tested when they visit their family physicians. The size of this infectious reservoir of asymptomatic men is unknown but it is a major preventable cause of tubal infertility and ectopic pregnancies in women. Effective and efficient measures to identify asymptomatic infections in men should decrease the burden of suffering among women due to chlamydial infections.
1990-91 Award: $34,321
Awarded to date: $34,321

DR. JOHN W. SELLORS

Dr. Max A. Chernesky
Dr. James B. Mahoney
Dr. Amiram Gafni
Dr. Charles H. Goldsmith

McMaster University
Chlamydial Risk Screening of Women at Birth Control Clinics
In this study, 1,000 women attending two community birth control clinics will be screened for Chlamydia Trachomatis infection to determine the factors which predict this disease and to compare the costs and consequences of selective vs. global screening for Chlamydia. In addition, a non-culture test, the antigen detection assay, will be compared with a culture test as a possible alternative method of testing. The goal is to improve the screening for this disease, thus lowering the burden of illness due to this infection.
1990-91 Award: $45,576
Awarded to date: $208,526

DR. ANDREW W. BRUCE

Dr. Robin S. Mcleod
Dr. Gregor Reid

Toronto General Hospital
Recurrent Urinary Tract Infections Using Lactobacilli
This study, which consists of a randomized controlled trial of 56 premenopausal women with a history of urinary tract infections (UTI), will determine whether a capsule containing the bacteria, lactobacilli, is effective in preventing the recurrence of the infection. Subjects will self-administer the capsule or a placebo treatment once a week for 12 months. The goal of the study is to discover alternative therapies to current antibiotic therapy and to decrease the pain and morbidity from UTI.
1990-91 Award: $83,409
Awarded to date: $215,993

DR. SALIM DAYA

McMaster University
Progesterone in the Treatment of Miscarriages
This double blind randomized study of women with recurrent spontaneous abortion due to corpeus luteum deficiency, will assess whether the hormone, progesterone, can result in a higher rate of successful pregnancy outcome. Women not receiving the progesterone will be given a placebo treatment. The goal of this study is to evaluate the efficacy of using progesterone to treat women with corpeus luteum deficiency.
1990-91 Award: $61,392
Awarded to date: $142,168

DR. MATHEW SERMER

Dr. James W. Ritchie
Dr. Ruth A. Milner
Dr. Christopher D. Naylor
Dr. Douglas J. Gare
Dr. Anne B. Kenshole

Toronto Hospital Corporation
Screening and Diagnostic Strategies for Gestational Diabetes
The purpose of this study is to re-evaluate current screening and diagnostic strategies for gestational diabetes (GD). Four thousand women will go through a number of different tests to determine who has GD. Those with GD will be treated. All women will be closely followed to determine if the test results can be matched to an increased risk of complications. The results will give a clearer indication regarding which strategies are best to identify women with gestational diabetes.
1990-91 Award: $286,891
Awarded to date: $383,412

DR. LEWIS LEIKEN

Dr. Peggy Baxter
Dr. Pat McGrath

Children's Hospital for Eastern Ontario
Treating Knee Pain in Female Adolescents
Patello-femoral knee pain is common, particularly among female adolescents. Much of the available research focuses on surgical techniques. This proposal involves a randomized controlled trial comparing two types of conservative management of patello-femoral knee pain through a series of strengthening and stretching exercises.
1990-91 Award: $44,846
Awarded to date: $44,846

TECHNOLOGY ASSESSMENT

DR. GORDON H. GUYATT

Dr. Stephen D. Walter
Dr. Robert J. Ginsberg
Dr. Farid M. Shamji
Dr. Richard T. Inculet
Dr. Jean DesLauriers
Dr. Michael S. Lefcoe
Dr. Michael P. Coughlin

McMaster University
Mediastinoscopy vs. Computerized Tomography in Lung Cancer
This study will evaluate whether patients with presumed operable lung cancer are better off if the approach to ruling out mediastinal disease is based on mediastinoscopy or on computerized tomography. This randomized controlled trial will examine the effect of the two approaches on mortality and cost.
1990-91 Award: $253,513
Awarded to date: $869,178

DR. MICHAEL A. JEWETT

Dr. Claire Bombardier

Wellesley Hospital
Study of Extracorporeal Shock Wave Lithotripsy
A new non-surgical treatment for kidney stones is Extracorporeal Shock Wave Lithotripsy (ESWL) which breaks up stones by high energy shock waves transmitted into the body. This study will evaluate its effectiveness in rendering the patient stone-free, the recurrence rate, safety, cost effectiveness, and patient acceptability. ESWL will be compared with current percutaneous techniques.
1990-91 Award: $46,940
Awarded to date: $191,228

DR. MICHAEL A. JEWETT

Dr. Claire Bombardier
Dr. Kostantinos E. Psihramis

Wellesley Hospital
Lithotripsy for Asymptomatic Kidney Stones
In extracorporeal shock wave lithotripsy (ESWL), kidney stones are reduced to fragments which are excreted in the urine. Some reports indicate ESWL causes hypertension. This randomized, controlled trial will compare immediate treatment of small asymptomatic kidney stones by ESWL, with observation with treatment only if symptoms develop. The potential for ESWL to induce hypertension and the need for treatment of asymptomatic real calculi will be evaluated.
1990-91 Award: $47,396
Awarded to date: $200,600

MS S. LORRAINE YOUNG

Ms Karen L. Fryday-Field
Dr. M. Gail Woodbury
Ms Theresa M. Donovan
Dr. Nicholas Bellamy

Victoria Hospital
Interferential Current Stimulation in Reducing Knee Pain
This randomized double blind study of 70 subjects with arthritis of the bones in the knee will investigate the effects of using a low frequency alternating current on patients' perception of pain and level of physical function. A self-administered questionnaire will be used to evaluate treatment responses.
1990-91 Award: $29,330
Awarded to date: $135,178

DR. MARION MCGREGOR

Dr. Silvano A. Mior
Dr. Brian D. Schut
Dr. Harry S. Shannon

Canadian Memorial Chiropractic College
Usefulness of Flexion-Extension X-rays
This prospective study will evaluate how effective flexion-extension X-rays are in helping doctors to diagnose the presence of increased mobility between the vertebrae in the spine. The study will compare outcome measures for cases with and without such X-rays. The goals are to determine when and if X-ray motion studies of the cervical spine are necessary to diagnose clinical hypermobility of the vertebrae, and to improve clinical management of such cases.
1990-91 Award: $4,996
Awarded to date: $55,297

UTILIZATION

DR. BRIAN G. HUTCHISON

Prof. Jonathan Lomas
Dr. Jeremiah E. Hurley
Dr. Stephen Birch

McMaster University
Health Service Organizations and Hospital Utilization
The purpose of this study is to determine whether health service organization (HSO) funding reduces hospitalization, and whether physicians who already have low levels of hospital utilization are selectively attracted to the HSO system. Physicians who change from fee-for-service to HSO funding will be compared before and after the change in payment mechanism for hospital utilization rates with otherwise comparable physicians who remained in fee-for-service practice. Hospital utilization will be measured one and three years before the transition and three years after the transition to HSO practice and during corresponding years in the matched fee-for-service practices.
1990-1991 Award: $120,093
Awarded to date: $167,515

DR. CHRISTEL A. WOODWARD

Dr. Jeremiah Hurley

McMaster University
Changes in Physician Billing Profiles in Ontario
The proposed study will examine trends over time (1983-1989) in within-physician billing profiles for physicians in nine specialty groups in Ontario. The project has three major objectives: (1) to describe changes in the average monthly number of patients seen, number of services provided, services per patient, and service mix over the seven year period; (2) to examine the relationship between changes in these measures of utilization and characteristics of the physicians, their practices and the market area in which they are participating; and (3) to examine whether the changes are consistent with an income-maintenance hypothesis.
1990-91 Award: $48,026
Awarded to date: $48,026

METHODOLOGY FOR DECISION-MAKING

DR. R. BRIAN HAYNES

Dr. John C. Sinclair
Dr. Ruth A. Milner
Dr. Michael F. Ramsden

McMaster University
Operating Characteristics and Clinical use of MEDLINE Systems
The goal of this two-part study is to determine the extent to which MEDLINE, in its various forms, can be used directly by physicians to enhance clinical decision-making and improve patient care. Part I tests how audit and feedback and a preceptor help in learning how to search MEDLINE, and how these searches are used in decision making. Part II evaluates search techniques to detect the best studies in the medical literature.
1990-91 Award: $94,098
Awarded to date: $174,900

DR. SHELLEY B. BULL

Dr. L. L. Pederson
Dr. M. M. Cohen
Dr. A. S. H. Basinski

McMaster University
Methodology for Evaluating Multiple Outcomes
The investigators propose to evaluate new methodologies for analyzing research studies with multiple outcomes. They will apply the techniques in investigations of anti-smoking legislation and quality of care in anaesthesia. Date sets from studies in these areas will be analyzed in order to evaluate the methodology and address substantive questions. Identification of the best methodological approaches will lead to improved analyses and provide better information on which to base health care and health policy decisions.
1990-91 Award: $22,601
Awarded to date: $22,601

DR. LAWRENCE E. HART

Dr. Peter Tugwell
Dr. Charles H. Goldsmith
Dr. Geoffrey R. Norman
Ms Eileen M. Grace
Dr. Eldon R. Tunks
Dr. M. Alan J. Finlayson
Dr. Sikhar N. Banerjee

Pain Evaluation in Rheumatoid Arthritis
Pain is difficult to measure. However, since clinical decisions for patients with rheumatic disease require an evaluation of pain or pain relief, the goal of this study is to design a subjective pain scale, the Facial Animation Scale (FAS), that will provide a valid, reliable and usable measure of arthritic pain, and that will adequately reflect small changes in pain perception. During its development, performance of the FAS will be compared with that of other subjective scales that are traditionally used in the measurement of joint pain.
1990-91 Award: $19,824
Awarded to date: $37,891

Appendix 2

Research Dissemination

CONFERENCES

Dr. Elaine Borins Gender Science and Medicine	University of Toronto	$5,000
Dr. Donald McLachlan Conference on Alzheimer's Disease and Related Disorders	University of Toronto	$5,000
Dr. F.R. Fisher S.M. Dinsdale Conference in Rehabilitation	Royal Ottawa Regional Rehabilitation Centre	$5,000
Dr. Susan Goldberg Child Psychiatry Day in 1990	Hospital for Sick Children	$4,964
Dr. Richard A. Reeves Workshop on Ambulatory Blood Pressure Monitoring	Canadian Hypertension Society	$5,000
Ms Amy Lin 11th Annual Conference of the Canadian Biomaterials Society	Canadian Biomaterials Society	$4,760
Dr. Bonnie Robson Annual Meeting of the Canadian Academy of Child Psychiatry	Canadian Academy of Child Psychiatry	$4,400
Dr. Heather MacLean Health Promotion Research Methods: Expanding the Repertoire	University of Toronto	$5,000
Dr. G.M. McCarthy Provision of Dentistry for HIV Patients	University of Western Ontario	$10,000
Dr. Alan D. Bocking John Elgin Patrick Memorial Symposium	Lawson Research Institute	$10,500
Dr. Margot J. Taylor Fourth International Evoked Potentials Symposium	Hospital for Sick Children	$4,710
Dr. J. Beitchman Current Topics in Adolescent Psychiatry	University of Toronto	$5,000
Dr. Anne Matlow AIDS – A Practical Approach for the Health Care Professional	University of Toronto	$5,000
Dr. Harvey Skinner Cross-Cultural Research in Community Mental Health	University of Toronto	$5,000

Appendix 3 Research Units

THE NEURODEVELOPMENTAL CLINICAL RESEARCH UNIT

DR. PETER L. ROSENBAUM

Ms Carolyn Gowland
Ms M. C. Law
Dr. A. R. Willan
Dr. Gillian King

McMaster University/Chedoke-McMaster Hospitals Association of Treatment Centres of Ontario

Investigators from McMaster University's faculty of health sciences will work with the Association of Treatment Centres of Ontario to advance the care of disabled children and their families provided by the province's 19 children's treatment centres.

The investigators will examine ways of dealing with the high degree of mental health problems that occur in families with disabled children. They will see if more continuity of care benefits the children and will also seek ways to reduce stress for their parents.

The research team will evaluate the effectiveness if various treatments and develop better ways to measure the abilities of disabled children.

Clinicians at the treatment centres will be shown how to set up their own research studies and a provincewide system will be introduced for collecting information on disabled children.

1990-91 Award: $428,647
Awarded to date: $774,876

THE HEARING HEALTH CARE SERVICES DELIVERY RESEARCH UNIT

DR. DONALD G. JAMIESON

Dr. R. C. Seewald
Dr. J. P. Gagné
Dr. M. L. Hyde
Dr. Samuel Noh
Dr. James Wanklyn
Dr. Peter Coyte

University of Western Ontario
Otologic Function Unit,
Mount Sinai/Toronto General Hospitals

The research team is a partnership between the department of communicative disorders at the University of Western Ontario, Canada's largest and Ontario's only audiology training program, and the otologic function unit of Mount Sinai and Toronto General Hospitals.

The research team, headed by Dr. Donald Jamieson, will seek to promote more effective use of health care resources for the hearing impaired. It will look, for example, at the introduction of computerized hearing tests, which would allow audiologists to spend more time interpreting test results and planning necessary treatments.

The effectiveness of many diagnostic tests currently being used will also be assessed.

The team will probe how best to measure the need for a hearing aid and the benefit from it, how to select the appropriate aid from an increasingly wide range of choices, and how to use it most effectively.

1990-91 Award: $444,139
Awarded to date: $879,597

THE COMMUNITY HEALTH RESEARCH UNIT

DR. ROBERT A. SPASOFF

Dr. N. J. Birkett
Dr. P. J. Stewart
Dr. S. J. Corber
Dr. G. C. Dunkley
Ms M. M. Murphy
Dr. S. B. Hotz
Ms N. C. Edwards

University of Ottawa
Ottawa-Carleton Regional Health Department

A research partnership of the University of Ottawa and the Ottawa-Carleton Regional Health Unit will foster provincewide improvements in public health services.

The initial research will concentrate on three programs for the 600,000 people who live in the Ottawa-Carleton area: self-care, heart health and home care.

The research team will also be involved in further planning for the public health unit. It will assess public needs and look at ways of increasing the use of a community health information system now being developed.

The unit's evaluations of Ottawa-Carleton regional public health programs will be made available to other public health agencies with the goal of upgrading programs throughout the province.

1990-91 Award: $457,960
Awarded to date: $904,310

THE THAMES VALLEY FAMILY PRACTICE RESEARCH UNIT

DR. MARTIN J. BASS

Dr. I. R. McWhinney
Dr. M. A. Stewart
Dr. Carol McWilliam
Dr. Judith Brown

University of Western Ontario
London Chapter, College of Family Physicians of Canada

This partnership between the University of Western Ontario and the London chapter of the College of Family Physicians of Canada will examine how family doctors can provide more effective care for single parent families and the elderly.

The research team will identify the needs of elderly people while trying to improve family doctors' communication with them. Special attention will be paid to the co-ordination of care given by family doctors and hospitals so that, for example, tests are not unnecessarily repeated. The researchers will also be looking for ways to increase the continuity of care given to elderly and chronically ill people in their own homes.

In addition, the team will seek solutions to problems facing single families, including getting to see the family doctor, since most single parents are at work during office hours.

The Thames Valley Family Practice Research Unit also wants to find ways to improve preventive care in the family doctor's office through immunization, screening and lifestyle modifications.

1990-91 Award: $512,599
Awarded to date: $915,000

THE HOSPITAL MANAGEMENT RESEARCH UNIT

DR. PEGGY LEATT

Dr. Michael Murray
Dr. George Pink
Dr. L. L. O'Brien Pallas
Dr. Rhonda Cockerill
Dr. Jack Williams
Dr. L. Lemieux Charles
Dr. Ross Baker
Dr. Jan Barnsley
Dr. Marsha Cohen
Dr. Hildo Bolley

University of Toronto
Sunnybrook Health Science Centre

A multi-disciplinary team from the University of Toronto's department of health administration, headed by Dr. Peggy Leatt, in partnership with Sunnybrook Health Science Centre, will seek to advance management innovations already begun at the hospital, which include improving the decision-making and job satisfaction of nurses.

Nurses at Sunnybrook will have their workloads, job satisfaction and stress measured. The researchers want to evaluate these results and expand them to include nurses and other health professionals in other teaching hospitals.

Decision-making at the hospital has been decentralized to the department level where a physician manager, nursing manager and administrative director are accountable for the annual budget and resource allocation.

The research team will be assessing the information needs of this new approach to decision-making. IBM Canada will be providing more than $200,000 worth of computer hardware, software and services to be used by the team over a two-year period to link with the hospital's computerized data system.

1990-91 Award: $439,811
Awarded to date: $812,196

CENTRE FOR BIOETHICS

DR. FREDERICK H. LOWY

Prof. Bernard Dickens
Dr. Peter Singer
Prof. Wayne Sumner
Prof. James Till

University of Toronto
The Toronto Hospital
College of Physicians and Surgeons of Ontario

The University of Toronto opened the Centre for Bioethics in October, 1989. The Centre represents a multidisciplinary collaboration of Medicine, Nursing, Law, and Philosophy, and will conduct research in partnership with the Toronto Hospital and the College of Physicians and Surgeons of Ontario. The goal of the Centre is to contribute original research and scholarship toward the resolution of ethical issues in the use and provision of health services to Ontarians and Canadians. Specific objectives are: to examine ethical issues in physician reimbursement; to evaluate ethical issues posed by the use of clinical standards and guidelines; to examine the ethics of resource allocation in the Canadian context; and to examine the changing roles of health professionals. The Centre will also explore the issues in the elective use of life-sustaining treatments, and evaluate public polices to procure and distribute organs for transplantation.

1990-91 Award: $400,000
Awarded to date: $400,000

Appendix 4

Research Personnel

CAREER SCIENTISTS

DR. PAUL C. ADAMS

University of Western Ontario
Haemochromatosis & Liver Disease
Dr. Adams will undertake research studies to isolate a ferritin receptor in human liver tissue, leading to increased understanding of the pathogenesis of haemochromatosis, an inherited metabolic disorder which causes the body to accumulate iron. His results will lead to improved identification and management of patients with this disease.

DR. STEPHANIE A. ATKINSON

McMaster University
Paediatrics/Nutrition
Dr. Atkinson's research interest is paediatric nutrition. One main area of investigation is how the body uses minerals and vitamin D in infants and children at risk of developing bone disease. Specifically, this research is focused on the cause and treatment of mineral and bone disorders in prematurely born infants fed their mother's milk or intravenous nutrition; children treated for leukemia bone cancer; and children who have chronic inflammatory bowel disease.

DR. REINA BENDAYAN

University of Toronto
Membrane Cell Biology
Dr. Bendayan is undertaking studies on the mechanism of renal drug transport at the membrane and cellular levels. Her work will assist in the assessment and prevention of renal drug-drug interactions, and drug nephrotoxicity.

DR. RICHARD J. BENINGER

Queen's University
Psychology
Dr. Beninger's research interest is neurotransmitters and behaviour. He uses a psychopharmacological approach, evaluating the effect of drugs on the behaviour of animals. He is particularly concerned with the role of dopamine in locomotor activity and learning and acetylcholine in memory, and the possible use of this information in the treatment of patient groups including those with Parkinson's disease, schizophrenia and senile dementia of the Alzheimer's type.

DR. HEINZ J. BIEDERMANN

Queen's University
Chronic Pain
Dr. Biedermann is using power spectrum analysis procedures to process electrical recordings of back muscle activity to determine the relationship between muscle strength, biochemical muscle fatigue, muscle functioning and pain in chronic back pain patients. The effect of overall physical fitness and of endurance training is also under investigation with regard to these parameters, in order to evaluate objectively the contributions of both factors in the treatment of chronic back pain patients.

DR. CATALENA BIREK

University of Toronto
Head and Neck Cancer Genetics
Dr. Birek is exploring the genetic factors that indicate a predisposition to cancer in the head and neck. By screening for aberrant oncogenes in premalignant lesions, she hopes to find predictors of cancer progression, in order to develop effective risk assessment methods.

DR. KATHRYN A. BOSCHEN

University of Toronto
Rehabilitation of Physically Disabled
Dr. Boschen is conducting a program of research on the topic of independent living for individuals with physical disabilities. She will focus on the provision of community versus institutional accommodation for the disabled, while exploring factors such as motivation, social support, attendant care and emotional stability in determining independent living.

DR. THOMAS D. BRADLEY

University of Toronto
Sleep Apnea
Dr. Bradley will apply his knowledge of respiratory muscle physiology to the area of breathing disorders during sleep. He plans to study the phenomena of sleep apnea (cessation of breathing), and will assess respiratory muscle activity at the different stages of sleep. In addition, he will be investigating the significance of breathing disorders during sleep in patients with congestive heart failure and will also be investigating the uses of continuous positive airway pressure as a new treatment for congestive heart failure.

DR. ROBERT J. BRISON

Queen's University
Injury Epidemiology
Dr. Brison will work at the interface of community health and emergency medicine by researching the epidemiology of injuries. He will develop an injury surveillance system in the Kingston area building up a data base suitable for quality assurance and evaluation research. When risk factors for injuries have been identified, prevention programs may be developed. In addition, he has an interest in the study of farm-related injuries.

DR. DONALD CAMERON

University of Ottawa
Sexually Transmitted Disease
Dr. Cameron's research interest is in sexually transmitted disease. He will investigate the role of genital ulcer disease in promoting HIV transmission in developing countries. In addition, he will develop a longitudinal study of the effects of HIV infection on the immune and neurological systems. His goal is to understand disease progression and develop a safe and effective vaccine.

DR. KAREN M. CAMPBELL

University of Western Ontario
Perinatal Epidemiology
Dr. Campbell wishes to develop research methodologies and apply them in the perinatal health care area. She is particularly interested in the measurement theory of classification, for example, in predicting whether a neonate will be "well" or "impaired". The methodology will used to study developmental outcome of very low birth weight survivors of neonatal intensive care.

DR. HEATHER CARNAHAN

University of Western Ontario
Movement Control and Motor Skill Learning
Dr. Carnahan's interest is in motor learning, motor control and lateralized control of visually guided movements. Her research will investigate the mechanisms underlying the control and learning of skilled movement. A deeper understanding of these mechanisms will lead to therapeutic approaches used in physical therapy.

DR. STEPHEN C. CUNNANE

University of Toronto
Diet and Metabolism
Dr. Cunnane's research is focused on obtaining a better understanding of the metabolic and nutritional importance of essential fatty acids in human development, health and disease. Aspects of this topic currently under study include the development of non-invasive methods of study of omega-3 fatty acid metabolism in diabetes and hyperlipidemia, and an assessment of the importance of essential trace elements in fatty acid metabolism.

DR. LAWRENCE H. CHOW

University of Western Ontario
Inflammatory Heart Disease
Dr. Chow will examine whether myocarditis induced by a virus is an autoimmune process mediated by cells that recognize heart specific antigens. His aim is to advance the understanding of myocarditis and cardiomyopathy which will lead to the development of treatment. This may be important in reducing the number of patients with congestive heart failure.

DR. ROBERT E. DALES

University of Ottawa
Epidemiology of Respiratory Disease
Dr. Dales is interested in the clinical epidemiology of respiratory diseases. He will study factors influencing patient and physician decision-making in diseases ranging from asthma, to cystic fibrosis, lung cancer and chronic obstructive lung disease.

DR. SALIM DAYA

McMaster University
Reproductive Immunology
Dr. Daya's research goals are the study of infertility, and recurrent spontaneous abortion (miscarriage). By studying the role of the mother's immune response during pregnancy, he hopes to determine the causes of, and develop therapies for these conditions.

DR. GREGORY A. DEKABAN

University of Western Ontario
Retroviral Molecular Biology and Immunology
Dr. Dekaban has two major research interests. He will pursue work on the role of retroviruses in diseases such as MS and AIDS. The goal of this research is immunotherapeutic intervention for these diseases. He will also attempt to genetically engineer cells that can produce insulin, with a view to transplanting these cells into diabetes patients.

DR. ROLANDO F. DEL MAESTRO

University of Western Ontario
Cerebral Ischemia and Cerebral Neoplasia
Dr. Del Maestro's research area is the investigation of brain disorders, particulary those related to ischemia (cessation of the blood supply) and neoplasms (tumours). He will investigate the biochemical nature of damage caused by these two conditions.

DR. KENNETH D. DIMOCK

University of Ottawa
Molecular Genetics
Dr. Dimock's research goal is to investigate the structure and function of parainfluenza virus antigens. Parainfluenza viruses cause human respiratory disease, in particular bronchiolitis and pneumonia in infants and young children. Knowledge of the structure and function of the viral antigens will help in the development of effective vaccines.

DR. GREGORY P. DOWNEY

University of Toronto
Mechanisms of Adult Respiratory Distress
Dr. Downey is studying Adult Distress Syndrome, or acute lung injury which causes respiratory failure. He is particularly interested in the role played by pulmonary inflammatory cells in the development of lung inflammation. The goal of his research is to develop ways of moderating acute inflammation in the lungs.

DR. DANIEL J. DRUCKER

University of Toronto
Molecular Endocrinology
Dr. Drucker is studying the molecular control of peptide hormone biosynthesis. These studies are directed at elucidating the normal factors which regulate peptide hormone gene expression, and the abnormalities in the control of gene expression which contribute to the pathophysiology of diabetes mellitus and endocrine neoplasms.

DR. THOMAS J. ELMSLIE

University of Ottawa
Family Medicine
Dr. Elmslie is conducting epidemiological studies in family medicine and community health care, with a particular interest in the elderly. He is studying topics such as sexually transmitted infections, and screening for alcoholism, in the family practice setting, and preventive health care, and utilization of family medicine services by the elderly.

DR. MARY M. FANNING

University of Toronto
Infectious Diseases
Dr. Fanning's research interest is HIV infection. She will conduct a number of studies to define the natural history of HIV infection, develop tools to evaluate the usefulness of interventions, and test potential therapies.

DR. ELEANOR FISH

University of Toronto
Cell Biology
Dr. Fish plans to investigate the microbiology of interferon. She will examine how interferon affects cell function and inhibits cell proliferation. These studies will increase our understanding of the effects of interferon which will be important in developing appropriate cancer therapy.

DR. JOHN S. FLORAS

University of Toronto
Cardiovascular Disease
Dr. Floras' research interest is cardiology. He is studying the role of the sympathetic nervous system in the control of blood pressure in patients with high blood pressure, congestive heart failure and other circulatory disorders. The results will be used to improve diagnosis and treatment for patients with cardiovascular disease.

DR. POH-GEK FORKERT

Queen's University
Respiratory Diseases
Dr. Forkert's research interest is respiratory diseases. She will conduct research into the mechanisms by which chemicals in the environment cause damage to the lungs, leading to greater understanding of environmental and occupational health hazards.

DR. MORRIS FREEDMAN

University of Toronto
Behavioural Neurology
Dr. Freedman's aim is to improve understanding of the mechanisms underlying dementia and depression, two major mental health problems for the elderly. He will assess cognitive deficits and functional impairments in elderly patients with Alzheimer's disease or depression and relate the neurophysical dysfunctions to anatomical lesions.

DR. RUTH GALLOP

University of Toronto
Nursing Difficult Chronic Patients
Dr. Gallop's research interest focuses on patient populations perceived as "difficult" by health professionals. Her goal is to develop effective interventions to improve staff-patient interactions and improve patient outcome, particularly for AIDS and psychiatric patients.

DR. SUSAN R. GEORGE

University of Toronto
Neuroendocrinology
Dr. George's research interest is in neuroendocrinology. She is studying factors regulating enkephalin neurons in the brain, including those at the level of gene expression. A better understanding of the role in normal processes may provide a framework for investigating disease states such Parkinson's disease, addictions and substance abuse (alcohol, narcotics, nicotine), obesity and stress-related disorders. She is also studying the clinical diagnosis and treatment of several pituitary disorders with analogues of hypothalamic hormones.

DR. ROSE GOLDSTEIN

University of Ottawa
Autoimmune Disease/Rheumatology
Dr. Goldstein will use the methodology of molecular immunogenetics in a research program to examine the relationships between genes and susceptibility to autoimmune diseases, including systemic lupus erythematosus (SLE). Specifically, she will use recombinant DNA technology to develop gene probes which can be tested in SLE patients as markers for this disease.

DR. PAMELA J. GOODWIN

University of Toronto
Breast Disease
Dr. Goodwin is using epidemiological and experimental research approaches to study various aspects of breast cancer. She is interested in the causes, treatment and prevention of this disease. Her plans include studies of the relationships between diet, lipids, cyclical mastopathy and breast cancer.

DR. ROBERT E. GORE-LANGTON

University of Western Ontario
Endocrinology of Reproduction
Dr. Gore-Langton is undertaking a program of research directed at understanding the roles of hormones in human fertility. By examining culture models for ovarian cells and follicles, the effects of trophic hormones on growth and function, cell-to-cell interactions, and the development of ova will be assessed. The research is relevant to infertility in women, and "test-tube" babies.

DR. DAVID R. GRANT

University of Western Ontario
Transplantation of Small Bowel
Dr. Grant will conduct a program of research focused on the role of transplantation in the treatment of gastrointestinal disease. He will explore intestinal transplant rejection factors in graft-versus-host disease in animals, and also conduct clinical studies in liver transplantation patients, looking at topics such as intraoperative blood loss, gall bladder function, and graft survival.

DR. GORDON H. GUYATT

McMaster University
Clinical Epidemiology
Dr. Guyatt's research interest is studying the epidemiology of chronic heart and lung disease. Specifically, he will develop and evaluate measures of quality of life for these patients, for use in experimental studies of potential treatments. The measures can also be applied in gerontology studies.

DR. DELSWORTH G. HARNISH

McMaster University
AIDS Virology
Dr. Harnish has developed sensitive and specific assays for HIV (human immunodeficiency virus), and is evaluating these tests in patients with AIDS (acquired immunodeficiency syndrome), and in individuals who have seronconverted, to assess disease progression. He is also interested in neuroblastoma research, and in the role of persistent viruses in human disease.

DR. LAWRENCE E. HART

McMaster University
Clinical Epidemiology/Rheumatology
Dr. Hart will implement a series of studies to develop appropriate measurement methodologies for patients with rheumatoid arthritis and other rheumatic diseases. Once validated, these measures will be used in the testing of both pharmacological and physical therapeutic interventions. He will also conduct research in sports medicine, and look at the relationship of sports injuries to degenerative joint disease.

DR. PERCY R. HARVEY

University of Toronto
Hepatobiliary Cholelithiasis
Dr. Harvey's research interest is the study of gall bladder disease. He is conducting biochemical research to identify the components of human bile that facilitate the formation of cholesterol gallstones. The results will lead to the development of prevention strategies and better treatment of the disease.

DR. RONALD R. HOLDEN

Queen's University
Clinical Psychology – Assessment of Psychopathology
Dr. Holden is interested in the research area of psychopathology. In particular, he will investigate sophisticated measurement techniques including computerized quantitative methods for assessing personality disorders.

DR. JANET E. JEFFREY

University of Western Ontario
Nursing for Chronically Ill
Dr. Jeffrey wishes to investigate factors associated with the quality of life for chronically ill patients, for example, those with rheumatoid arthritis. She will focus on strategies to manage life quality, with a view to strengthening nursing practice for these patients.

DR. STEPHEN J. KISH

University of Toronto
Neuropsychiatry
Dr. Kish's research interest is neuropsychiatric disorders. Specifically, he will conduct research into diseases triggered by brain malfunctions, such as Parkinson's disease, Alzheimer's disease, schizophrenia and epilepsy. The purpose of this research is to gain further insight into the role the brain plays in these diseases.

DR. BARBARA S. KISILEVSKY

Queen's University
Fetal/Neonatal Well-Being
Dr. Kisilevsky will investigate the development of auditory and tactile perception in human fetuses and neonates. She will determine the characteristic patterns of heart rate and movement responses to vibrations and sounds in healthy and sick babies, before and after birth. This way she will determine the usefulness of fetal auditory and tactile stimulation tests to assess fetal well-being.

DR. GIDEON KOREN

University of Toronto
Clinical Pharmacology
Dr. Koren's field of research is paediatric pharmacology and deals with designing appropriate drug therapy for infants and children. This will involve the collection of comprehensive information on drug safety and effectiveness. He is particulary interested in the effects of drug and chemicals on the fetus and the renal handling of drugs.

DR. LAURA H. KREFTING

Queen's University
Community Based Rehabilitation
Dr. Krefting's research program is concerned with community based rehabilitation for the disabled, particularly for the elderly. Anticipated areas of focus include decision-making, service wage patterns, explanatory models of disability, and caregiver burden.

MS ROBERTA LABELLE

McMaster University
Health Economics
Ms Labelle will pursue a research program in health economics. She is interested in the financing of the health care system, and the role of health care providers in determining health care utilization, expenditures and health status. She will also develop methodologic issues in economic evaluation studies in addition to conducting applied work in this area.

DR. ANDREAS LAUPACIS

University of Western Ontario
Clinical Epidemiology
Dr. Laupacis is using his expertise in clinical epidemiology and biostatics to conduct evaluative studies of medical therapies. Areas of particular interest are the assessment of medical technology, the evaluation of quality of life, and clinical trials in general. Specific areas of research are the cost-effectiveness of cemented compared with non-cemented hip prostheses, evaluation of the effect of recombinant human erythropoietin upon the quality of life of haemodialysis patients, and evaluation of the effect of anticoagulants on the stroke rate in patients with atrial fibrillation and prosthetic heart valves.

MS MARY CATHARINE LAW

McMaster University
Independence of Physically Handicapped Children
Ms Law is interested in researching the environmental, architectural and community barriers, and societal attitudes which prevent disabled children from developing normal decision-making and activity patterns. As they grow, normal children gradually assume control, whereas disabled children have limited opportunities to learn independence. She hopes to develop and evaluate approaches to management of the community environment, to enhance the activity and independence of children with physical handicaps.

DR. BRIAN LEBER

McMaster University
Molecular Genetics of Leukemia
Dr. Leber plans to study chronic leukemia and his goal is an examination of gene activation specific to this disease. He will use basic cloning and sequencing techniques with a view to understanding the genetic defects causing maturation arrest in these cells.

DR. ROBERT M. LEE

McMaster University
Hypertension
Dr. Lee's research interest is hypertension, specifically its relationship to the structure of blood vessels. He will also explore, using electron microscopy, the effect of anti-hypertensive drugs on blood vessel structure. Early treatment may prevent the structural changes which lead to chronic hypertension.

DR. SIMON LEVIN

McMaster University
Neonatal Cerebral Blood Flow
Dr. Levin's research interest is the prevention and treatment of brain damage in infants and children, with the ultimate goal of reversing established cerebral damage. His studies will contribute to an understanding of cerebral blood flow in the pre-term and term infant and what factors affect it.

DR. DAVID P. LILLICRAP

Queen's University
Inherited Coagulation Disorders
Dr. Lillicrap is applying molecular genetic techniques to study the pathology that underlies haemophilia and other common inherited disorders of blood clotting. He is particularly interested in developing direct genetic methods to detect carriers of inherited disorders.

MR. JONATHAN LOMAS

McMaster University
Health Services Research
Mr. Lomas is interested in health services research, to evaluate current and alternative methods of providing health care. He will examine issues such as utilization, delivery systems and the use of research information in policy development.

MS OLA LUNYK-CHILD

McMaster University
Parent-Child Health
Ms Lunyk-Child's research interests are in the area of parent-child health. The focus of her research program is the psychosocial needs of families, particularly around the time of birth. She will analyze factors that help reduce stress, study the impact of pre-term birth on marital quality, and assess both resilience and vulnerability to distress of the pre-term birth.

DR. STEPHEN J. LYE

University of Toronto
Uterine Muscle Disorders
Dr. Lye's research program concerns the physiological and biochemical mechanisms which control uterine muscular activity. Results from his studies may be used for the development of treatment for pre-term labour and painful menstruation.

DR. IAN M. MACDONALD

University of Ottawa
Molecular Biology of Eye Disease
Dr. MacDonald is using his expertise in both genetics and ophthalmology to undertake research into hereditary eye diseases. He will use molecular biology studies to map the gene associated chorioderemia, and determine the underlying pathophysiology of this condition.

DR. LESLIE W. MACKENZIE

Queen's University
Reproductive Biochemistry
Dr. MacKenzie's research interest is the contractility of the smooth muscles of the uterus. The absence of contractile activity during pregnancy is essential to the tranquil environmental needed for fetal growth. Synchronized and energetic contractions (labour) are necessary at the end of pregnancy to give birth. Painful contractions accompanying menstruation, in non-pregnant women are a factor in pre-menstrual syndrome. He hopes to discover the mechanisms underlying the regulation of uterine muscle contractions, so that therapies for pre-term labour and dysmenorrhoea can be developed.

DR. MICHEAL F. MAZUREK

McMaster University
Neurochemistry of Degenerative Disorders
Dr. Mazurek's long-term research goal is to develop a therapeutic strategy to prevent the onset of Huntington's disease. His hypothesis is that individuals carrying the gene for the disease are susceptible to neurotoxic effects that damage the central nervous system. By understanding the neurochemistry of the mechanism, he hopes to develop a pharmacological block to the neurotoxic effect. This work will also have relevance to the treatment of stroke and to the prevention of hypoglycaemic brain damage.

DR. CHRISTOPHER A. MCCULLOCH

University of Toronto
Dentistry
Dr. McCulloch's research interest is diseases of the teeth and gums. He will study gum tissues from both healthy and inflamed sites to see if the inflammation affects the normal production of connective tissue cells in the gums. Findings may be useful for inflammatory diseases such as rheumatoid arthritis.

DR. PATRICIA A. MCGRATH

University of Western Ontario
Pain Control
Dr. McGrath's primary research interests are the assessment and management of children's pain problems. She has developed specialized pain control programs for children with cancer pain, recurrent headaches, and acute pain caused by repeated medical treatments. A multidisciplinary Children's Pain Clinic, integrating research and service, was started in 1983 for the study and management of different acute, recurrent, and chronic pains.

DR. ROBERT S. MCKELVIE

McMaster University
Cardiac Rehabilitation
Dr. McKelvie is interested in the interrelationships between exercise testing, exercise physiology and cardiac rehabilitation. He will undertake a broad range of studies to examine the physiological and therapeutic effects of various exercise regimes for patients with heart disease.

DR. ROBERT J. MCLEAN

Queen's University
Microbiology of the Urinary Tract
Dr. McLean's research interest is in the microbiology of the urinary tract. He is particularly concerned with the role of various microorganisms that normally inhabit the urinary tract, in infections, and their role in the formation of kidney stones.

DR. WILLIAM D. MOLLOY

McMaster University
Treatment of Dementia
Dr. Molloy is conducting trials to evaluate specific drug therapies and develop instruments to measure cognitive function, behaviour problems, psychiatric problems and function in the activities of daily living in dementia. He is also interested in physicians' decision making in the care of chronically ill and demented patients.

DR. STEVEN P. NADLER

University of Ottawa
Kidney Pathology
Dr. Nadler is studying how the tubules of the kidney control how much salt is retained in the body, or excreted. He will look at the mechanisms by which they handle salt, and the influence of different hormones on this function. His research will increase understanding of kidney diseases which result in too much salt retention, causing the body to swell.

DR. HOWARD J. NATHAN

University of Ottawa
Anaesthesia
Dr. Nathan's research program includes both laboratory and clinical investigation. His interest is to determine the effects of anaesthesia and cardiovascular drugs on the coronary circulation. His goal is to reduce the incidence of cardiac complications in patients with coronary artery disease who must undergo anaesthesia and surgery.

DR. CHRISTOPHER D. NAYLOR

University of Toronto
Health Services Research
Dr. Naylor's broad research program will include research methods development, clinical research, and economic analysis of health care organizations. Initially, he will focus on the area of cardiovascular clinical epidemiology. In the future, he plans to study in detail the Comprehensive Health Service Organization concept in Toronto.

DR. HYMAN B. NIZNIK

University of Toronto
Neuropharmacology
The object of Dr. Niznik's research is to locate a biochemical abnormality in the brain that can be consistently associated with schizophrenia. Using molecular genetic and biochemical techniques to study dopamine receptors in brain tissue from normal and schizophrenic patients, he hopes to find precise diagnostic measures, and develop new types of medical treatment for schizophrenia.

DR. LINDA O'BRIEN-PALLAS

University of Toronto
Nursing Administration
Dr. O'Brien-Pallas' research goal is to study the allocation of nursing care resources. She will develop ways of measuring both quality and quantity of nursing care, including patient requirements, and nurses' workloads and satisfaction. She will also evaluate alternative ways of assigning work.

DR. NANCY F. OLIVIERI

University of Toronto
Haematology
Dr. Olivieri's field of research is molecular biology, focused in the area of the genetic disorders of red blood cells. She will study how the body controls the development of hemaglobin in these cells. This research is relevant to the treatment of related life threatening anemias, and example of which is Sickle Cell Disease.

DR. WILLIAM G. PATERSON

Queen's University
Gastroesophageal Disease
Dr. Paterson's research interest is gastroenterology. He will study various aspects of esophageal physiology as well as the mechanisms of acid induced esophageal injury. His results will increase understanding of esophageal motility disorders and gastroesophageal reflux disease.

DR. PETER PENNEFATHER

University of Toronto
Electrophysiology and Pharmacology
Dr. Pennefather is studying the cellular mechanisms of drug actions on organs of the body. He is investigating the series of molecular events that occur when a drug reaches its cellular target in the body by measuring the electrical signals associated with those events. Understanding the mechanisms of the action of drugs will lead to improved drug therapy.

DR. PETER W. PFLUGFELDER

University of Western Ontario
Cardiac Imaging By Magnetic Resonance
Dr. Pflugfelder is interested in research involving magnetic resonance imaging (MRI) of the heart. He will be using a new rapid MRI in clinical studies involving patients with varying degrees of volume overhead for the left ventricle, and in animal studies to determine if cine MRI can assess regional impairment of myocardial contractility.

DR. IGOR PROKOPIW

University of Western Ontario
Gastrointestinal Physiology
Dr. Prokopiw is studying the functioning of the blood vessels of the gastrointestinal tract during absorption and secretion. Alterations of blood flow in the digestive tract may be of importance in gastroenterological diseases such as peptic ulcer disease.

DR. GEORGE P. RICE

University of Western Ontario
Viral Immunology
Dr. Rice has focused on three areas at the interface of virology, immunology and neurobiology. His specific research interests include: the nature of cytomegalovirus (CMV) induced encephalitis; interaction between HIV and CMV; the pathogenesis of HTLV-1 associated myelopathy; and the role for a retrovirus in the pathogenesis of multiple sclerosis.

DR. CAROLYN J. ROSENTHAL

University of Toronto
Behavioural Science
Dr. Rosenthal's research interest is in applying sociological concepts in gerontology research, specifically looking at the relationship between aging, health and the family. The extent to which the family participates in providing health care to the elderly will be examined.

DR. PETER C. ROWE

University of Ottawa
Paediatric Epidemiology
Dr. Rowe is interested in paediatric epidemiology with two major research thrusts. First, he is interested in assessing risk factors for paediatric disease, for example, the risk of infectious illness in daycare settings. Secondly, he will study the cost-effectiveness of the management of paediatric health, for example, evaluating a telephone information service in a paediatric emergency room, which may reduce unnecessary visits.

DR. JAMES T. RUTKA

University of Toronto
Childhood Brain Tumours
Dr. Rutka proposes to study the molecular biology of paediatric tumours, with the aim of developing new rationales for treatment. He will establish and use tumour cell lines in culture to assess different ways to modulate growth. These research will lead to improved cancer therapy.

DR. DANIEL N. SAUDER

McMaster University
Immunopathological Basis of Skin Disease
Dr. Sauder's research involves the study of the skin as the peripheral arm of the immune system. In particular, he will examine the relationship of immunoregulatory and proinflammatory skin proteins in normal homeostasis and their potential role in various diseases that affect the skin.

DR. NEIL H. SHEAR

University of Toronto
Dermatology/Clinical Pharmacology
Dr. Shear's research interest is skin drug metabolism, or how the skin breaks down and uses drugs. He will develop methods for defining and detecting adverse drug reactions in the skin. He will also develop treatment for skin problems, such as psoriasis.

DR. PHILIP M. SHERMAN

University of Toronto
Enteric Disease
Dr. Sherman's field of research is the study of inflammatory diseases of the bowel – specifically diarrhea in infants and young children caused by the bacteria E. coli. The research should increase understanding of how E. coli cause diarrhea in humans so that effective treatments and vaccines can be developed.

DR. KATHERINE A. SIMINOVITCH

University of Toronto
Medicine – Rheumatology
Dr. Siminovitch's research program is directed at developing an understanding of the genetic mechanisms which regulate both normal and abnormal function of the cells of the immune system. She will use a molecular genetic approach. This work has relevance to immune system related diseases e.g. AIDS, rheumatoid arthritis.

DR. ALEXANDER J. STOESSL

University of Western Ontario
Peptides and Movement Disorders
Dr. Stoessl is using his expertise in neuropharmacology to study movement disorders. He is studying the effects of brain peptides on motor responses, to enhance understanding of the mechanisms of Parkinson's disease, tardive dyskinesia, and normal aging.

DR. MYRON R. SZEWCZUK

Queen's University
Immunology
Dr. Szewczuk's research interest is in studying the immunological deficits that occur as people age. He is interested in the relationship between degenerative changes and factors which regulate the immune system.

DR. RACHEL THIBEAULT

University of Ottawa
Psychology and Occupational Therapy
Dr. Thibeault's research in occupational therapy is focusing on the impact on daily activities and quality of life in several diagnostic populations, including female cancer patients, depressed people, and patients with degenerative disease. She will assess levels of anxiety, activity and general well-being before and after occupational therapy.

DR. LESLIE J. VAN DOVER

McMaster University
Family Planning
Dr. Van Dover plans to study ways of improving nursing practice related to community health problems. She will focus on family planning problems, particularly among adolescents, examining, for example, risks and prevention programs for unintended pregnancy.

DR. HUBERT VAN TOL

University of Toronto
Neurotransmitter Receptor Biology
Dr Van Tol's research goal is to describe the dopamine receptor system in the brain and its role in psychiatric disease, particularly schizophrenia. By isolating and analyzing dopamine receptors in brain tissues from patients with these diseases, he will enhance our understanding and ability to treat psychiatric disorders.

DR. JAMES M. WATTERS

University of Ottawa
Aging and Trauma of Surgery
Dr. Watters is interested in research into the metabolic response to surgery, trauma, and sepsis. He will study the effect of aging on these responses and their mediators, and the modulation of responses using growth factors and specific anaesthetic techniques. His findings will be valuable as the elderly population and the number of surgical procedures performed on elderly patients increase.

DR. DONALD F. WEAVER

Queen's University
Anti-epileptic Drug Therapy
Building on his research expertise in both chemistry and clinical neurology, Dr. Weaver will study the underlying structure and activity of synthetic anti-epileptic peptides. The goal of his research is to design and evaluate replacement therapy for epileptic patients.

DR. CATHERINE I. WHITESIDE

University of Toronto
Renal Physiology
Dr. Whiteside's research interest is renal physiology. Her work focuses on the disease mechanisms involved in diabetic nephropathy. A deeper understanding of these mechanisms will lead to better methods of preventing, arresting or treating this silently incapacitating kidney disease.

DR. DOUGLAS W. ZOCHODNE

Queen's University
Neuromuscular Disease
Dr. Zochodne plans to investigate neuromuscular diseases. He will examine drug and environmental influences modifying the function of peripheral nerves in patients with neuromuscular problems such as diabetic neuropathy. He will also extend his research to look at nerve blood flow related to nerve injury and regeneration.

FELLOWSHIPS

DR. SUSAN E. ABBEY

University of Toronto
Chronic Fatigue Syndrome and Depression
Dr. Abbey is undertaking graduate studies leading to a Ph.D. degree in Medical Science, focusing on the research area of chronic fatigue syndrome and depression.

MS DEBORAH H. ALLISON

University of Toronto
Delivery of Speech and Language Health Care Services
Ms Allison is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research topic of the delivery of speech and language health care services.

MS CAROL L. ANDERSON

University of Toronto
Acute Confusion in the Elderly
Ms Anderson is undertaking graduate studies leading to a M.Sc.N. degree in Nursing, focusing on the research area of acute confusion in the elderly.

MR. DANIEL J. BEGIN

University of Ottawa
Thyroid Hormone Action
Mr. Begin is undertaking graduate studies leading to a Ph.D degree in Biochemistry, focusing on the research topic of thyroid hormone action.

MS MARLENE BEHRMANN

University of Toronto
Acquired Brain Damage
Ms Behrmann is undertaking graduate studies leading to a Ph.D. degree in Psychology, focusing on the research area of acquired brain damage in adults.

MS KAREN A. BLACKFORD

York University
Psychosocial Relationships of Teens with Mothers with Lupus
Ms Blackford is undertaking graduate studies leading to a Ph.D. degree in Sociology, focusing on the research topic of psychosocial relationships of teens with their mothers with lupus.

MS ROSEMARY BRANDER

University of Western Ontario
Movement Measurement in Infants
Ms Brander is undertaking graduate studies leading to a M.Cl.Sc. degree in Physical Therapy, focusing on the research topic of movement measurement in infants.

MS KAREN LYNN CHONG

University of Toronto
Interferon Induced Protein Kinase
Ms Chong is undertaking graduate studies leading to a Ph.D. degree in Genetics, focusing on the role of protein kinase in the anti-viral effect of interferon.

MS CHERYL ANNE COTT

University of Toronto
Rehabilitation of the Elderly
Ms Cott is undertaking graduate studies leading to a M.Sc. in Behavioural Science, focusing in the research topic of the rehabilitation of the elderly.

MS HEATHER M. CRAIG

University of Toronto
Hostility and Cardiovascular Disease
Ms Craig is undertaking graduate studies leading to a Ph.D. degree in Medical Science, focusing on the research area of hostility and cardiovascular disease.

MS NANCY C. EDWARDS

University of Ottawa
Community Health Epidemiology
Ms Edwards is undertaking graduate studies leading to a Ph.D. degree in Epidemiology, focusing on the research area of community health epidemiology.

DR. CECIL JAY ENGEL

University of Western Ontario
Cancer Radiotherapy
Dr. Engel's research interest is cancer radiotherapy. He will develop radiation techniques for the treatment of deep-seated tumours. This research will lead to improvements in controlling cancer growth.

MS CHERYL FORCHUK

McMaster University
Psychiatric Nursing
Ms Forchuk is undertaking graduate studies leading to a Ph.D. degree in Nursing, focusing on the research topic of psychiatric nursing.

DR. CHRISTINE M. FRIEDENREICH

University of Toronto
Diet and Cancer Epidemiology
Dr. Friedenreich is undertaking research in cancer epidemiology. She will participate with the International Agency for Research on Cancer to investigate the effects of diet on cancer.

DR. VIVEK GOEL

University of Toronto
Decision Science and Policy Analysis
Dr. Goel is undertaking graduate studies leading to a Sc.D. degree in Biostatistics, focusing on the research area of health decision science and policy analysis.

DR. BARTHOLOMEW J. HARVEY

University of Toronto
Breast Cancer Screening Epidemiology
Dr. Harvey is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research topic of breast cancer screening epidemiology.

MS PHILIPPA H. HOLOWATY

University of Toronto
Natural History of Cervical Cancer
Ms Holowaty is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research topic of the natural history of cervical cancer.

MS CARLA J. JOHNSON

University of Western Ontario
Language Acquisition Disorders
Ms Johnson is undertaking graduate studies leading to a Ph.D. degree in Cognitive Psychology, focusing on the research topic of language acquisition disorders.

DR. JOEL KATZ

University of Toronto
Chronic Pain & Affective Disorder in Elderly
Dr. Katz is conducting research in pain memories that arise after amputation of a limb. His results will further our understanding on the relationships between depression, anxiety, and chronic pain in the elderly.

DR. NAM W. KIM

University of Toronto
Microbiology of Campylobacter
Mr. Kim is undertaking graduate studies leading to a Ph.D. degree in Microbiology, focusing on the research area of campylobacter.

MS SUSAN A. KIRKLAND

University of Toronto
Epidemiology of Health Behaviour
Ms Kirkland is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research topic of the epidemiology of health behaviour.

MS MARIANNE LAMB

University of Toronto
Patient and Provider Attitudes Toward Managed Care
Ms Lamb is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research topic of patient and provider attitudes toward managed care.

DR. KULDEEP S. NEOTE

University of Toronto
Molecular Genetics of Campylobacter
Dr. Neote's interest is in the molecular genetics of Campylobacter. He will study a cytotoxin, produced by Campylobacter which is thought to cause stomach and duodenal ulcers.

DR. JOHN I. OKWUSIDI

McMaster University
Thromboembolism and Atherosclerosis
Dr. Okwusidi is investigating the mechanisms underlying thrombosis and atherosclerosis. He is studying factors with thrombolytic therapy which inhibit thrombus growth. His research goal is to find a more effective therapy.

MR. THOMAS J. OVEREND

University of Western Ontario
Physical Education
Mr. Overend is undertaking graduate studies leading to a Ph.D degree in Physical Education, focusing on the research area of exercise in the elderly.

MS WENDY E. PENTLAND

Queen's University
Functional Changes with Aging in the Disabled
Ms Pentland is undertaking graduate studies leading to a Ph.D. degree in Physiotherapy, focusing on the research area of aging in the physically disabled.

MR. DAVID J. PICKETTS

Queen's University
Molecular Biology of Hemophilia
Mr. Picketts is undertaking graduate studies leading to a Ph.D. degree in Pathology, focusing on the research area of the molecular biology of hemophilia.

MR. MARC J.POULIN

University of Western Ontario
Exercise and Breathing Rate in the Elderly
Mr. Poulin is undertaking graduate studies leading to a Ph.D. degree in Physical Education, focusing on the research area of exercise and breathing rate in the elderly.

MS MARGARET M. ROSS

University of Toronto
Impact of Institutionalization in Elderly
Ms Ross is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the research area of the impact of institutionalization on the elderly.

DR. MICHAEL RUCKENSTEIN

University of Toronto
Hearing Recovery from Acoustic Trauma
Dr. Ruckenstein is undertaking graduate studies leading to a M.Sc. degree in Medical Sciences, focusing on the research topic of hearing recovery from acoustic trauma.

MS LINDA A. TURNER

University of Western Ontario
Utilization of Prenatal Services
Ms Turner is undertaking graduate studies leading to a Ph.D. degree in Epidemiology and Biostatistics, focusing on the research topic of utilization of prenatal services.

MR. DAVID N. VOLLICK

University of Western Ontario
Clinical Psychology
Mr. Vollick is undertaking graduate studies leading to a Ph.D. degree in Psychology, focusing on the research area of the etiology of schizophrenia.

MS RACHEL TOBIAZ WEISS

University of Toronto
Institutionalization of Demented Elderly
Ms Tobiaz Weiss is undertaking graduate studies leading to a Ph.D. degree in Community Health, focusing on the institutionalization of the demented elderly.

Appendix 5

Health Research Personnel Development Program Review 1988 – Executive Summary

HEALTH RESEARCH PERSONNEL DEVELOPMENT PROGRAM REVIEW 1988 EXECUTIVE SUMMARY

The Health Research Personnel Development Program was implemented by the Ministry of Health in 1982. The principal objective of the program was to develop a cadre of clinical and community health researchers to meet expected manpower needs in Ontario in the next decade.

At the review meeting of the Health Research Personnel Committee in October, 1988 a subcommittee was struck to review the operation of the program from its inception in 1982. Membership of the committee was as follows: Drs. A. Angel, A. Mohide, A. Zipursky, and J. F. Seely (Chairman).

The terms of reference of the program review were:

1. To review the performance of the program to date against the objectives of the program.
2. To make recommendations for program directions for the future.

A total of 116 Career Scientist awards have been made as follows: provincial competition 38; annual local allocation 61; special local allocation 17. In the Allied Health Professions, there have been 15 out of 116 (13%) awards, with two out of 38 (5%) in the provincial competition.

The ratio of annual local allocation to provincial competition awards is 1.5 to 1.0. The overall ratio of awards in clinical to community health research is approximately four to one. The success rate to date appears high and is estimated at a minimum of 83%. It appears that availability of extra-mural research funding has not been a significant limit to success in the program.

Success of the awards through the provincial competition and through the local annual allocations does not appear to differ significantly. The local annual allocation branch of the program is being used to respond to local initiatives, strengths and needs in a way that the provincial competition is neither designed nor capable of doing.

A total of 113 Fellowship awards have been made as follows: research experience 46; PhD studies 47; and MSc studies 20. The target ratio of four clinical to one community health Fellowship awards has been met.

The VPs of the five health sciences centres, former committee members and career scientists agree that the program has been an unqualified success in maintaining and developing clinical investigators and in protecting the time of junior investigators to establish clinical research programs, and on the importance of the local awards to foster local priorities in underdeveloped areas.

Two documents submitted by the Ontario Universities Committee on Health Research highlighted the development needs in nursing and rehabilitation sciences.

CONCLUSIONS

The program has been successful in meeting its principal objective, to develop a cadre of clinical and community health researchers to meet expected manpower needs in the next decade. Given the program's success to date, and the strong support of the research community, the program should continue. However, to address emerging trends in the research milieu, some modifications to the program need to be incorporated.

The cadre of clinical investigators in Ontario developed by the program, represents a vital investment of the Ministry to ensure that the necessary human resources are present to address important questions in the health care field. These include such issues as gaining a better understanding of the mechanism of disease, its causation, and factors related to its control, designing better methods of prevention, testing for the most cost effective interventions, and evaluating new technologies, drugs, physical and medical therapies. The part of the program targeted to community health specifically addresses the goals of health promotion and disease prevention, a healthy physical environment and provision of accessible health services. An increase in the priority attached to nursing and rehabilitation research will contribute to goals of fostering supportive families and communities and reducing disabilities.

RECOMMENDATIONS

1. That the program should continue for five more years, with essentially the same terms and conditions as are currently laid out, and with current levels of funding maintained, and augmented to provide for new research manpower goals.
2. That new 10-year Career Scientist awards (five years, renewable once) through annual provincial competitions *and* local allocations, and new training awards should be made, with the objective of developing and maintaining a cadre of excellent clinical and community health researchers in Ontario.
3. That in recognition of emerging research trends in nursing and rehabilitation disciplines, the eligibility criteria for *local* allocation awards *in these areas only,* should be changed to:
   - permit Career Scientist awards to individuals who hold regularly-funded positions, where the award would release the candidate from clinical, teaching, or administrative duties, to devote the majority (75%) of their time to research;
   - allow these Career Scientists to continue to hold their awards without obtaining an extra-mural operating grant in the first *three* years;
   - within the total award duration of 10 years, provide up to three years of initial support to permit such candidates to pursue further research training, prior to the Career Scientist appointment. During this period of support, the individual would be termed a Career Scientist-in-training, and would be reviewed by the provincial awards committee before progressing to a Career Scientist appointment.
4. That the proportion of clinical to community health awards should remain in the ratio of 4:1, using the current definitions of clinical and community health research.
5. That the proportion of local to provincial awards, and career to training awards, should be kept at the current ratios.
6. That the local review system for selecting candidates for local awards, supervised by the VPs Health Sciences, should be monitored periodically by the Ministry to ensure rigour and equitability over time, as circumstances and university personnel change.
7. That sponsoring universities should be required, at the time of application, to: identify an experienced, established investigator to serve as a mentor for a new Career Scientist; guarantee adequate protection of time and income to permit the Career Scientist to devote at least 75% time to research.
8. That all awards should continue to be vetted annually for eligibility and progress, by the provincial awards committee, to ensure that uniformly high standards of excellence are maintained across all arms of the program.
9. That, as part of the standard of research excellence, the requirement for candidates to hold a peer-reviewed grant within two years from the start of the award should be maintained (with the exception noted in Recommendation 3).
10. That the sponsoring university should provide at the time of renewal (at five years), written commitment of their intentions with respect to tenured, tenure stream, or other faculty position for the candidate within the next five years.
11. That all aspects of the program should be reviewed after five years, to ensure that the overall aims of the program are being met.
12. That greater profile should be given to the program at a provincial and national level to make both the academic field and the public aware of the strength of clinical and community health science in this province.

Appendix 6

Emergency Health Services Research

EMERGENCY HEALTH SERVICES RESEARCH

DR. H. MICHAEL O'CONNOR

Dr. Robert Brison
Dr. Jonathan Dreyer
Dr. Gordon Jones
Dr. Justin Maloney
Dr. Douglas Munkley

Hotel Dieu Hospital

A Multicentre Clinical Trial to Evaluate the Impact of the Introduction of a Basic Life Support/Defibrillation Program in Survival Following Prehospital Cardiac Arrest

Statistics in Ontario have suggested that the most important factor predicting survival from out-of-hospital cardiac arrest is the time to defibrillation. This study will do a before/after comparison of proportional survival of cardiac arrest victims attended to by ambulance personnel in communities across Ontario.

1990-91 Award: $7,758
Awarded to date: $115,288

DR. MICHAEL SHUSTER

Dr. John Chong
Dr. Harry Sharron
Dr. Stephen Lloyd

Chedoke-McMaster Hospitals

A Comparison of Basic and Advanced Life Support in the Prehospital Treatment of Chest Pain

This study will examine the outcomes of patients with cardiac chest pain treated by Advanced Life Support ambulance personnel. Their outcomes will be compared with those of similar patients receiving Basic Life Support ambulance care. Outcomes will be judged on the basis of incidence of myocardial infarction (heart attack), as well as size of infarct, incidence of complications, length of hospital stay, and mortality/morbidity after six months.

1990-91 Award: $50,575
Awarded to date: $88,036

DR. ROBERT J. BRISON

Queen's University

Farm Related Injuries in Eastern Ontario

The farm is one of the most hazardous settings for work-related injury as well as non-work related injury. This study proposes to estimate the incidence of farm related injuries in all persons who work or reside on farms, including children. Potential risk factors for injury will be quantitatively assessed including demographic factors and those associated with different types of farm work, farming operations and equipment. In addition, the use of emergency health services (both in-hospital and prehospital services) by the farming community will be assessed. This will permit the development and targeting of preventive strategies aimed at reducing the incidence and severity of farming injuries.

1990-91 Award: $12,838
Awarded to date: $47,238

DR. IAN G. STIELL

Dr. Paul Hebert
Dr. Sankaranarayanan Raman
Dr. Jan Ahuja
Dr. Charles Butts
Dr. Garth Dickinson
Dr. Lyall Higginson
Dr. David Prupas
Dr. Brian Weitzman
Dr. Andreas Wielgosz

Ottawa Civic Hospital

Study of High Dose Epinephrine in Cardiopulmonary Resuscitation

Epinephrine, also known as adrenalin, is a hormone used as a heart stimulant and muscle relaxant. This clinical trial will assess the effectiveness of high dose epinephrine (7.0 mg) versus regular dose epinephrine in standard Advanced Cardiac Life Support protocols used in the treatment of emergency department and in-hospital cardiac arrest patients. Major outcomes to be assessed will be immediate survival, survival to discharge, and neurological outcomes.

1990-91 Award: $55,850
Awarded to date: $55,850

DR. DAVID E. WESSON

Dr. Barry McLellan
Dr. Robert Tibshirani
Dr. John Paul Szalai

Hospital for Sick Children

Evaluation of Triage Guidelines for Trauma Patients in Metro Toronto

Using the triage guidelines, Metropolitan Toronto hospitals allow ambulance attendants to bypass the nearest hospital for one with specialized trauma facilities if the attendant believes such action is warranted. The study will compare assessments made by ambulance attendants with those later done by hospital physicians to see if the patients were taken to the most appropriate hospital. The study results will show if the system is working properly and making the most effective use of trauma services.

1990-91 Award: $30,063
Awarded to date: $30,063

DR. JAMEEL ALI

Sunnybrook Health Science Centre

Evaluation of the Pneumatic Antishock Garment

This study will examine several controversial areas concerning the use of the pneumatic antishock garment. These areas include fluid and biochemical responses, intrathoracic haemorrhage, cardiogenic pulmonary edema and erupted diaphragm. This device is still widely used in prehospital trauma resuscitation. Clarification of these controversial areas will assist in establishing a more rational basis for the use of these garments.

1990-91 Award: $41,480
Awarded to date: $41,480

DR. TERRY KLASSEN

Ms Renee Blowin
Dr. Peter McDonald
Dr. Sankaranarayanan Raman
Dr. Marilyn Li

Children's Hospital of Eastern Ontario
Ordering of Extremity Radiographs in a Paediatric Emergency
There is great variability in ordering X-rays for extremity trauma in children, due to the lack of established objective criteria. Although X-ray ordering has traditionally been done by physicians, nurses might as effectively perform this role for extremity trauma, utilizing specific patient selection criteria. This study hopes to show that utilization of radiographs can be improved by using selective clinical criteria in cases of extremity trauma. They also hope to demonstrate that triage nurses can safely and effectively order extremity X-rays, thereby shortening the amount of time patients spend in the emergency room.
1990-91 Award: $27,325
Awarded to date: $27,325

Dr. IAN G. STIELL

Dr. Gary Greenberg
Dr. Douglas McKnight
Dr. Rama Nair

Ottawa Civic Hospital
A Study to Develop and Assess a Clinical Decision Rule for the Use of Radiography in Acute Ankle Injuries
Virtually all patients seen in Canadian emergency departments for an ankle injury are referred for an X-ray examination, and yet the majority of the results are negative. This study will attempt to develop an accurate and dependable set of guidelines for patients seen in emergency departments with acute ankle injuries. Such guidelines will allow physicians to determine more accurately which patients with ankle injuries truly require an X-ray, and will lead to a large reduction in the ordering of ankle X-rays. The benefits will be reductions in radiation exposure, waiting times in emergency departments, and costs to the health care system.
1990-91 Award: $3,676
Awarded to date: $3,676

Appendix 7

Review Committees

HEALTH CARE SYSTEMS RESEARCH REVIEW COMMITTEE

Nicholas Bellamy, MD
Victoria Hospital,
London

Nicholas Birkett, MD
University of Ottawa
Ottawa

K. Stephen Brown, PhD
University of Waterloo
Waterloo

Charles K. Chan, MD
Wellesley Hospital,
Toronto

Stephen J. Corber, MD
Ottawa-Carleton Health
Department, Ottawa

John W. Feightner, MD
McMaster University
Hamilton

Gordon H. Guyatt, MD
McMaster University
Hamilton (Chair)

Alfreda S. Kartha, PhD
University of Western
Ontario, London

Laura Krefting, PhD
Queen's University
Kingston

Andreas Laupacis, MD
University Hospital,
London

Patricia A. McGrath, PhD
University of Western
Ontario, London

Robin S. McLeod, MD
Toronto General Hospital
Toronto

Alba Mitchell, MSc
McMaster University
Hamilton

David Naylor, MD
Sunnybrook Health Science Centre,
Toronto

Kathleen I. Pritchard, MD
Toronto-Bayview Regional
Cancer Centre, Toronto

Barbara Schmidt, MD
McMaster University
Hamilton

David L. Streiner, PhD
McMaster University
Hamilton

Elaine E. Wang, MD
Hospital for Sick Children
Toronto

George A. Wells, PhD
Laboratory Centre for
Disease Control, Ottawa

HEALTH SYSTEM-LINKED RESEARCH UNITS GRANTS REVIEW COMMITTEE

Martin J. Bass, MD
University of Western
Ontario, London

Claire Bombardier, MD
Wellesley Hospital
Toronto (Chair)

Dugal Campbell, PhD
Ontario Mental Health
Foundation, Toronto

Karyn Kaufmann, PhD
McMaster University
Hamilton

Peggy Leatt, PhD
University of Toronto
Toronto

Mark N. Levine, MD
Ontario Cancer Foundation
Hamilton Clinic, Hamilton

Thomas A. MacKenzie
Queen's University
Kingston

Paula Stewart, MD
Ottawa-Carleton Regional
Health Unit, Ottawa

Jack I. Williams, PhD
Sunnybrook Health Science
Centre, Toronto

HEALTH RESEARCH PERSONNEL COMMITTEE

Aubie Angel, MD
Institute of Medical
Sciences, Toronto

David N. Churchill, MD
St. Joseph's Hospital
Hamilton

John H. Duff, MD
University Hospital
London

E. Anne Mohide MSc
McMaster University
Hamilton

Mary Morris, MD, PhD
University of Ottawa
Ottawa

Joseph L. Pater, MD
Queen's University
Kingston

John F. Seely, MD
Ottawa General Hospital
Ottawa

Calvin R. Stiller, MD
University Hospital
London (Chair)

Alvin Zipursky, MD
Hospital for Sick Children
Toronto

TRILLIUM CLINICAL SCIENTIST SELECTION PANEL

Michel Chretien, MD
Clinical Research
Institute of Montreal
Montreal, P.Q.

Bertha Madras, PhD
Harvard Medical School
Southborough, Mass.

Arnold Naimark, MD
University of Manitoba
Winnipeg, Manitoba

Bernard Perey, MD
Victoria General
Hospital
Halifax, Nova Scotia

David Hawkins, MD
Memorial University
St. John's,
Newfoundland

Lionel McLeod, MD
University Hospital
Vancouver, B.C.

Beverly Murphy, MD
Montreal General Hospital
Montreal, P.Q. (Chair)

Mamoru Watanabe, MD
University of Calgary
Calgary, Alberta

EMERGENCY HEALTH SERVICES RESEARCH ADVISORY COMMITTEE

Lillian Bramwell, PhD
University of Western
Ontario, London

Robert Brison, MD
Queen's University
Kingston (Chair)

David Caspari, MD
The Toronto Hospital
Toronto

John Jacono, PhD
Laurentian University
Sudbury

Stephen Lloyd, MD
McMaster University
Hamilton

Ian Stiell, MD
University of Ottawa
Ottawa

Richard Verbeek, MD
Sunnybrook Health Science
Centre, Toronto

Appendix 8

Addiction Research Foundation

ADDICTION RESEARCH FOUNDATION

MR. MARTIN SHAIN

Ms H. Suurvali
Ms V. Shehadeh

The Comprehensive Health and Assistance Plan Project
In partnership with Health and Welfare Canada and eight Ontario worksites, this project was established to develop and evaluate an innovative system for identifying the health-related needs and risks of employees in several test locations. A prototype model has been built around the concept of stress as a precipitator of various health problems, including alcohol and drug abuse. During the next two years, this model will be disseminated through partner agencies in each province, providing a critical mass of programming for evaluation purposes.

MS JUDITH GROENEVELD

Mr. M. Shain

The Domestic Violence Project
With considerable interest from a number of women's advocacy groups, a provincial survey of 2,000 women living with partners led to the collection of Ontario data on the prevalence and correlates of domestic violence, with an emphasis on drug use by victims. Preliminary results have been released, receiving much media attention. A project report will form the basis of policy recommendations to government and social agencies.

DR. KENNETH ALLISON

Ms D. Mates

The School Stress Study
With support and interest of two Ontario school boards, surveys of stress among high school populations were undertaken. The work was pursued as an attempt to better understand the extent to which alcohol and drug use among students is related to factors in school and home environments that generate superfluous stress. Such factors include "streaming", the dissonance between home and school demands, peer group and other interpersonal pressures and the conflicting demands of earning money and academic achievement. The results are expected to have implications for the ways in which schooling is organized so that it is less stressful and less conducive to the use of alcohol and drugs as coping mechanisms.

DR. REGINALD G. SMART

Dr. E. Adlaf

The Ontario Student Drug Use Survey
With the collaboration of school boards throughout the province, this study is part of a series of surveys, conducted every two years, which investigate the nature and extent of alcohol and drug use among Ontario students in grades 7 through 13. It allows for monitoring trends in alcohol and drug use. Recently the findings from these surveys have identified a decline in the use of most drugs. The information obtained from this study is useful to educators in planning alcohol and drug education.

DR. REGINALD G. SMART

Dr. E. Adlaf

The Ontario Adult Alcohol and Other Drug Use Survey
This survey aims to monitor alcohol and drug use by adults in Ontario as a part of a series of surveys which have been conducted since 1977. The survey includes 1,000 adults over the age of 18 who live in households throughout Ontario. It provides important information on the nature and extent of drug use and the trends in usage over time, and the level of problems experienced by adults in Ontario.

DR. REGINALD G. SMART

Dr. E. Adlaf
Ms K. Porterfield
Ms M. Canale

The Drug, Youth and the Street Project
By working with youth agencies, this project represents an effort to determine the alcohol/drug use and the treatment needs of street youths in Toronto. One hundred and forty-five street youth were identified through collaboration with approximately 10 randomly selected youth agencies. The study confirmed that street youth are a high risk group, experiencing many problems beyond those related to alcohol and drugs. In addition to identifying their alcohol and drug use practices and treatment preferences, the findings are expected to be important to youth agency personnel and the planning of services for street youth.

DR. REGINALD G. SMART

The World Trends in Drug Abuse Project
In conjunction with the World Health Organization (WHO), an annual report on trends as indicators of drug use and abuse will be prepared with respect to Toronto. The project is part of an attempt by WHO to improve its ability to describe and understand drug use trends around the world. This project will provide information about Toronto and contribute to understanding drug problems from the world perspective.

DR. REGINALD G. SMART

Dr. R. E. Mann
Ms L. Anglin

The Study of Reduction of Alcohol Related Problems
This project uses information provided by Alcoholics Anonymous and Addiction Treatment Agencies throughout Ontario. From World War II to 1975, there was a steady increase in the *per capita* consumption of alcohol. In 1975 a decline began which has continued in Ontario, Canada and elsewhere. In addition, there has been a larger than expected decrease in the indicators of alcohol dependence (e.g. liver cirrhosis). In trying to understand this phenomenon, it has been found that there has been an attendant increase in the level of treatment and membership in Alcoholics Anonymous. This project has important policy implications, including increasing access to treatment services.

DR. NORMAN GIESBRECHT

Comparative Studies of Drinking Cultures and Controlled Experiences

In conjunction with researchers from several countries, this study aims to provide descriptions and analyses of consumption trends, changes in drinking pattern, control measures and drinking-related complications in six countries (Australia, Austria, Iceland, Italy, Japan and Sweden) from 1950 to 1985. The work will be based on official statistics, survey data and archival information regarding policy developments and changes in regulations. The project will encourage researchers to examine temporal changes in alcohol-control experiences and provide insights for policy analysts, public health specialists and administrators.

DR. NORMAN GIESBRECHT

The Impact of Changes in Alcohol Availability and Consumption

A working relationship has been struck with researchers from a number of different countries. Employing case studies of "natural experiments", this study will examine major or sudden changes in alcohol availability and consumption in different countries – for example, strikes or lockouts in the alcohol industry, dramatic changes in price, termination of prohibition, changes in legal drinking age, and large-scale prevention campaigns. The results of this project will be of interest not only within the Canadian context, but also in developing countries which are experiencing pressures to increase production and access to alcohol.

DR. NORMAN GIESBRECHT

Ms J. Bogles
Ms L. Farinon
Ms P. Pranovi
Ms L. Wood

The Ontario Prevention Study

This study has been implemented with the involvement of three small Ontario towns. Following the introduction of a multi-component intervention, this project will examine whether changes in consumption of heavy drinkers affect the distribution of alcohol consumption in the population as a whole. The project will provide detailed information on the impediments to community-oriented interventions, the roles that heavy consumption and community views have on the success of an intervention, and the means for mobilizing local participation in prevention programs.

DR. NORMAN GIESBRECHT

Alcohol, Tobacco and Other Drug Use in Canada: Profiles, Consequences and Responses

With contributions from a number of staff of other Canadian research organizations and ARF, this project involves the preparation of an analytical monograph based on analyses of the 1989 National Alcohol and Drugs Survey conducted by Health and Welfare Canada, archival data, as well as other Canadian surveys and literature reviews. The report will focus on regional, socioeconomic and family and network variations in consumption, alcohol and other drug-related problems, perspectives on policy issues and implications for health promotion and prevention, and other special issues. This publication will be a key resource for research, policy planning and prevention initiatives.

DR. NORMAN GIESBRECHT

Dr. B. Kapur
Dr. V. McGowan
Ms J. Barker

A Pilot Study of Emergency Service Patients

With direct interprovincial collaboration, this study explores the prevalence of drinking and other drug related admissions to the Emergency Departments of two large urban hospitals. Project staff interviewed non-psychiatric patients, obtained urine samples and reviewed chart information. These data will be examined with respect to patient problems, demographic characteristics and other variations. The pilot phase will identify high risk populations and develop guidelines to facilitate implementation of community-based prevention initiatives.

DR. NORMAN GIESBRECHT

Dr. V. McGowan

Guidelines for the Development of Prevention

In co-operation with Canadian health promotion and health care specialists, this project will prepare guidelines for monitoring the role of alcohol/drugs in illness, injuries and chronic conditions, and implementing prevention activities. The guidelines will help local communities to plan prevention activities and evaluate their effects.

DR. ROBERTA FERRENCE

Dr. L. Kozlowski

The Use of Tobacco and Alcohol Study

A study is being made of methodological issues in using health survey data to evaluate the relationship between alcohol use, smoking and health. Studies of alcohol consumption often do not control adequately for cigarette smoking. The protective effect of moderate drinking, as reported by some researchers, may be explained by higher rates of cigarette smoking among former drinkers. This work suggests that moderate drinking may not be beneficial to health, and draws attention to the importance of examining all types of substance use when considering the effects of one substance.

DR. ROBERT B. COAMBS

Dr. L. T. Kozlowski
Ms S. Li

Factors Predicting Likelihood of Quitting Smoking
The relationship between the likelihood of quitting smoking, age of the smoker, and severity of dependence on nicotine will be examined in a large representative sample of smokers. The importance of severity of dependence in predicting cessation of smoking may depend upon the age of the smoker.

DR. ROBERT B. COAMBS

Ms E. Wilson
Ms A. Santhiapillai

Effectiveness of Public Quit-Smoking Campaigns
This research program is being conducted in partnership with the Canadian Council on Smoking and Health and the Metropolitan Toronto Council on Smoking and Health. The effectiveness of a quit-smoking "hotline" operated across Canada in January, 1990, and of a similar hotline and single day smoking abstinence campaign ("Weedless Wednesday") operated in Metropolitan Toronto will be evaluated. In the Canada-wide campaign, callers were sent literature emphasizing the help of a physician, and a focus of the evaluation is on callers who received nicotine gum as an aid to quitting.

DR. ROBERT B. COAMBS

Dr. L. T. Kozlowski
Dr. K. L. Dion
Dr. K. K. Dion
Ms S. Rosenstein

Analyses of Changing Social Attitudes Toward Smokers
This research program involves collaboration with the Psychology Department at the University of Toronto and with the East York Health Unit. The research investigates changes in the societal stereotype of smokers, comparing such changes with the stereotype for heavy drinkers. The research conducted in partnership with the East York Health Unit examines high school students' stereotypes of smokers and of those who do not exercise regularly.

DR. ROBERTA FERRENCE

Dr. L. Kozlowski

Drinking and Self-Destructive Behaviour
With data acquired from hospitals in the City of London, this study investigates the role of alcohol in the social context of suicide attempts, the physical condition of the patient, and the institutional response to the suicide attempt. Preliminary analyses suggest that usual and prior alcohol consumption has a significant effect on these aspects of suicide attempts. These findings will be of importance to hospital emergency departments which treat a high proportion of problem drinkers.

DR. EVELYN R. VINGILIS

Dr. R. E. Mann
Ms F. Muskovitch
Ms F. Blackmore
Mr. R. Cameron

Cabbagetown Community Arts Co. (CCAC)
A research and development team is working in partnership with CCAC to develop a substance abuse prevention program employing peer-based activities for seven to 18-year-old youth living in the surrounding areas. The goal is to develop, evaluate and refine a pilot program that can be adopted by other community-based programs.

DR. EVELYN R. VINGILIS

Dr. B. Kapur
Dr. E. Larkin
Ms P. Liban
M. H. Blefgen
Ms G. Stoduto

The Sunnybrook Medical Centre Project
The Sunnybrook Medical Centre and the Addiction Research Foundation collaborative project has involved approximately 600 motor vehicle accident victims aged 16 to 50 years, hospitalized over a three-year period with a one-year post-trauma follow-up. The first study analysed the incidence and prevalence of alcohol and drugs, and the relationship between blood alcohol and injury severity and recovery. The second study interviewed trauma victims from the original sample and examined a variety of demographic, historic, attitudinal and personality variables. The third study is designed to assess long-term recovery, recidivism of trauma victims and reliability of post-trauma data.

DR. ROBERT E. MANN

Dr. E. Vingilis
Ms L. Anglin
Ms H. Suurvali
Dr. M. Poudrier

Long-Term Follow-up of Convicted Drinking Drivers
This project has been pursued with the assistance and involvement of the Ministry of Transportation and sevveral Ontario Courts. There is a great need for information regarding the effectiveness of rehabilitation programs for convicted drinking drivers, and ways to determine individuals who are likely to experience further problems. Initial assessments, 10-year follow-up interviews, and official record data are being assembled for approximately 600 convicted drinking drivers who were participants in either a rehabilitation program or a control condition. The results will indicate the characteristics of offenders who benefitted from rehabilitation.

DR. ROBERT E. MANN

Dr. E. Vingilis
Ms L. Anglin
Dr. R. G. Smart

The Population Factors Influencing Accident Risk Project
As a collaborative endeavour, this project was undertaken with the Ministry of Transportation. Recently, the magnitude of the drinking-driving problem, measured by accident rates, has begun to decline following many years of increases. This research employs epidemiological methods to estimate the contribution of changes in alcohol consumption to accident declines. Subsequently, the impact of such factors as police enforcement, prevention and rehabilitation activities will be examined. This work permits an evaluation of the population-level effectiveness of several drinking-driving countermeasures.

DR. ROBERT E. MANN

Dr. E. Vingilis
Dr. A. Wilkinson
Dr. L. Fornazzi
Ms L. Anglin
Dr. H. Lei
Mr. W. Skinner

Drugs and Driving: High Risk Groups and Situations
This research examines the traffic accident risks associated with abuse of single and multiple drugs. Clinical samples are being interviewed about drug use, driving behaviour and factors that may predispose to high-risk driving and drug use. These data will be linked to official accident records, and the accident risks experienced by abusers of specific drugs and drug combinations will be determined. The results of this research will indicate what efforts, if any, are necessary to control the drugged driver.

DR. PATRICIA ERICKSON

Mr. T. Weber

The Long-Term Study of Cocaine Use

Much of what we know about cocaine users has been derived from treatment samples and population surveys. However, surveys do not provide an in-depth look at the heaviest users, while treatment samples over represent those with the most serious problems. A long-term study will follow early-stage cocaine users over a period of three to five years. The study will determine the proportion of users who progress to more serious levels of use, the ways people use cocaine, why they use it, what they like/ dislike about it, and whether its use affects other aspects of their lives. This research, the first of its kind in Canada, will contribute essential knowledge of the consequences of cocaine use and how these change over time and with different levels of use. This information will help with the planning of more effective treatment services and prevention programs.

DR. ROBERTA FERRENCE

Dr. L. Kozlowski

The Effect of Language and Gender on Drug Use

Data from the Canadian health promotion survey will be used to examine smoking patterns among francophones and anglophones. Francophones have for some years had higher rates of cigarette use than anglophones. However, preliminary analyses show no difference between the two language groups with respect to health behaviour or knowledge of the effects of smoking. There is, nevertheless, greater tolerance among francophones for smoking by others. This research also involves analysis of sex differences in the use of licit and illicit substances, using data from the recent Canadian alcohol and drug survey and previous surveys. Results will provide guidelines for program development.

DR. YUET CHEUNG

Ms C. Leonard

Ethnicity, Immigration and Drug Use Among High School Students in Toronto

With the co-operation of school boards in Metropolitan Toronto, the purpose of this study is to compare the alcohol and drug use patterns of 600 students of different ethnic backgrounds. This study will consider the relationship between ethnicity and drug use, as well as the influence of self-image, depression and adjustment. The findings will, for the first time, provide more detailed information regarding some of the major multicultural issues relating to alcohol and drug use among high school students. The information will be useful in designing alcohol/drug counselling and education programs.

MS MANUELA ADRIAN

Ms P. Jull
Mr. R. Williams
Mr. M. Truong

Statistical Trends in Alcohol and Drug Use Problems

In collaboration with local, provincial, federal and international agencies, research is pursued by utilizing secondary analysis of official statistics and large data bases, using epidemiological, demographic, econometric and statistical techniques. Accordingly, the nature and extent of alcohol and drug use are studied with respect to their social, health, legal and economic consequences. In addition to macro-level studies of health, health care and enforcement, this project also analyses the influence of alcohol and drugs on high risk groups. The project aids in identifying high risk groups, problem areas and developing trends. The results can be utilized in improving the targeting of prevention, health promotion and treatment and influencing the larger area of policy and legislation.

DR. U. BUSTO

M. K. Lanctôt
Ms P. Isaac
Ms M. Adrian

Trends in Psychotropic Drug Use and Abuse in Canada

This project involves a collaborative effort of the Foundation with the Faculty of Pharmacy at the University of Toronto and the World Health Organization/Pan American Health Organization Drug Utilization Research Group. The research team monitors trends of psychotropic drug use and abuse in Ontario and Canada, focusing on prescription drugs. Yearly trends of abuse of different prescription psychotropics (e.g. benzodiazepines, opiate analgesics) are documented and interpreted in the context of overall use of these drugs. The research team also compares such trends to international trends of use and abuse, monitors educational and regulatory interventions, identifies areas of high prescription rates and determines relative abuse of different drugs.

DR. LOUIS GLIKSMAN

Dr. W. Hindmarsh

Drug Use Patterns and Problems Among Canada's Pharmacy Students

In collaboration with researchers at the School of Pharmacy at the University of Saskatchewan a survey of pharmacy students in all schools of pharmacy in Canada will be conducted. In addition to providing a snapshot of this group's usage patterns and problems, the results of this survey will be compared to the results of the Ontario University Lifestyle Survey study which used the same survey questionnaire. Prevention programs, based on identified needs, will then be considered for development and implementation of this special population.

DR. BRIAN RUSH

Ms S. Tyas

Provincial Survey of Alcohol/Drug Treatment Services

This survey describes the provincial treatment network on a triennial basis with a view to providing up-to-date statistics for planning new programs. The survey also monitors changes in the network and examines trends relative to program and policy initiatives of the Addiction Research Foundation and government departments and ministries.

DR. BRIAN RUSH

Dr. J. Rankin
Dr. M. E. Millson
Dr. T. Myers
Dr. R. Coates
Ms C. Batty-Jarrett
Ms S. Tyas
Dr. B. McLaughlin
Ms C. Major
Mr. W. Mindell

Human Immunodeficiency Virus (HIV) Infection Associated with Injection Drug Use

Foundation scientists are combining their energies with efforts in Montreal and various countries across the globe to develop information that will help to prevent the spread of HIV infection associated with injection drug use. Collaborators are the World Health Organization, the University of Toronto, the Ontario Ministry of Health, and the Department of Health of the City of Toronto. Different studies will focus on clinical epidemiology of risk and prevalence of HIV infection among injection drug users, the effectiveness of prevention programs for injection drug users in Toronto, and a national survey of HIV programs concerned with HIV infection in intravenous drug users. The information collected from these studies will be vital in designing and co-ordinating prevention programs for this risk group.

DR. BRIAN RUSH

Ms S. Tyas

A Forecasting Model for Estimating the Required Capacity of Alcohol Treatment Services

A model has been developed in collaboration with the community mental health branch of the Ontario Ministry of Health to estimate the required capacity of treatment services at the community level throughout the province. Work is in progress to update the information on the prevalence of alcohol and other drug problems across the province and to fine-tune the model on the basis of validation studies and experience gained in its application. Local planning bodies around the province are using the model as part of their need assessment strategy for new treatment programs.

DR. BRIAN RUSH

Dr. M. Bass
Dr. M. Stewart
Dr. E. McCracken
Ms S. Bondy

Detection, Prevention and Management of Alcohol Problems in the Community: A National Survey of Family Physicians

The project is a collaborative effort between the Addiction Research Foundation at the University of Western Ontario and several members of the Department of Family Medicine, also at UWO. A national survey of family physicians has been conducted to assess the knowledge, attitudes and practices of Canada's primary care physicians in regard to the management of alcohol problems of their patients. Application of the research findings will be in the development of educational programs and materials to assist physicians in the systematic detection and management of alcohol problems.

DR. BRIAN RUSH

Assessing the Need for Substance Abuse Services: A Critical Review of the Literature

A review of published and unpublished studies concerned with assessment of need for substance abuse services is being undertaken. Advantages and disadvantages of various approaches are being identified as are topical areas requiring further research and development. Recommendations will be made concerning the most useful and promising techniques for community need assessment.

DR. KATHRYN GRAHAM

Ms C. Bois
Ms C. Birchmore-Timney

A Multi-site Study of Case Management

The present research is directed towards obtaining a systematic description of the implementation of co-ordination and advocacy as provided to substance abusers by assessment/referral centres. This description will include: (1) the nature and extent of co-ordination and advocacy; (2) the client or agency parameters that determine these functions, and (3) the extent that the delivery of co-ordination and advocacy is invariant across case management sites. The general method of research is prospective monitoring of advocacy and co-ordination performed on behalf of clients as part of case management. The results will be useful in identifying relevant considerations for providing case managment more efficiently and for designing evaluation research intended to test the effectiveness of particular co-ordination/advocacy strategies.

DR. LOUIS GLIKSMAN

Ms C. Smythe

Survey of Addictions-Specific Health Promotion Programs in Ontario

Because of the increased interest in health promotion activities in the health field, and the concomitant increase in funding requests, Health and Welfare Canada has expressed an interest in determining the extent and nature of addictions-specific health promotion programs in Canada. The investigators have developed a survey methodology and associated instrumentation to collect the data in structured fashion and organize the information based on a model of health promotion. The initial piloting of this strategy and instrumentation will take place in Ontario, and then proceed to the rest of the provinces and territories.

DR. LOUIS GLIKSMAN

Mr. M. Gavin
Dr. N. Giesbrecht
Ms C. Smythe
Mr. M. Villeneuve
Mr. J. Zarebski

Community Based Addictions-Specific Needs Assessment Health Promotion

Communities are now being required to plan and develop programs for health promotion. Most of these programs are developed on the basis of the community's wants and not necessarily its needs. This project will provide communities with the tools to determine their needs in relation to health promotion in addictions, and then to operationalize these needs in terms of a model of health promotion. The investigators will develop the instrumentation and accompanying manual, and field test the procedure and instruments in an Ontario community.

DR. LOUIS GLIKSMAN

M. C. Smythe

Evaluation of the ARF/TVOntario Teacher Training Program

At the initiative of TVO and the Provincial Anti-Drug Secretariat, ARF has been asked to assist in the development of a teacher training program that will utilize ARF's expertise in program development and TVO's electronic media facilities and ongoing network of community resources. The investigators will monitor the impact of these training events across the province as well as trainees' reactions to the process and materials. In addition, they will determine whether the use of materials is related to the type of training session attended.

DR. LOUIS GLIKSMAN

Ms C. Smythe

Evaluation of ARF's Teacher Training Program

ARF's Schools Programs Unit is developing a package of teacher training materials that will be made available to all school boards in the province as well as to other interested organizations. Once the materials are developed, the investigators will evaluate their effectiveness. Once the materials are marketed they will monitor their implementation across the province and assess any problems that arise and any changes that are required.

DR. LOUIS GLIKSMAN

Ms M. Rylett

Evaluation of the Focus Communities Project

The Provincial Anti-Drug Secretariat will be providing nine communities across Ontario with a total of $4.5 million to plan, develop and implement programs in their communities that will prevent illicit drug use. The investigators will evaluate the types of programs that are developed and implemented by monitoring their implementation and by assessing their impact on individuals specifically and the community generally over a two-year period. In addition, formative evaluation will be conducted to assist the community in planning.

DR. LOUIS GLIKSMAN

Dr. E. Adlaf
Ms C. Smythe

Assessment of the Relationship Between Drug Policies in School Boards and Student Drug Use and Problems

School boards in Ontario are being encouraged to develop and implement policies that specify what drug education will be taught, what early identification procedures will be in place, and what disciplinary actions are associated with what infractions. To date, no information exists as to whether these policies have any impact on student drug use and associated problems. The investigators will assess this relationship by surveying each school board in Ontario about its policies and then relating these data with information on student drug use and policies that is available from ARF's biennial student surveys.

DR. JOAN M. BREWSTER

Dr. J. G. Rankin
Ms Y. C. Chow
Dr. M. J. Ashley
Dr. H. Skinner
Dr. E. Single

The Role of Physicians in the Prevention and Treatment of Alcohol Problems

This project involves a research partnership among the Foundation, the Division of Community and Health at the University of Toronto, and the Canadian Medical Society on Alcohol and Other Drugs. A survey of Canadian medical schools, and provincial and territorial alcohol and other drug agencies was conducted. The research team is analysing the views of Canadian medical educators on the roles physicians should play in their patients' alcohol problems, the role of medical schools in preparing physicians for these roles, the state of current training in this field and alcohol-related policies of Canadian medical schools. This project will produce recommendations for improving alcohol-related education in Canadian medical schools.

DR. U. BUSTO

Dr. J. Brewster
Dr. J. Peachey
Dr. J. Rankin
Dr. R. Cohen

The Development and Testing of Modules to Assess Physicians' Prescribing Behaviour

Inappropriate prescribing of drugs by physicians is a major contributor to drug misuse in society, but adequate methods for assessment and re-education of problem physicians have never been developed. This project is a collaboration between the Addiction Research Foundation and the University of Toronto, Faculty of Medicine, with the co-operation of the College of Physicians and Surgeons of Ontario. The investigative team will look at variables including drug knowledge, clinical performance, physical and mental health, personal drug use and work setting. Results will be used to design reeducation programs for misprescribing physicians. There will also be recommendations for the improvement of medical education and the prevention of poor prescribing practice.

DR. H. ROSS

Dr. J. E. Peachey

Substance Use and Abuse in a University Psychiatric Health Service

Alcohol and drug use on university campuses has become an issue to which university administrations are becoming increasingly sensitized. The Psychiatric Division, University of Toronto Health Service, in co-operation with the Psychiatry Program of the Addiction Research Foundation is conducting a survey of substance use and abuse among students attending the Psychiatric Health Service. This research will be useful in the development of strategies to address students' problems, as well as in developing new policies and regulations regarding alcohol and drug use on campus.

Appendix 9

Ontario Mental Health Foundation

ONTARIO MENTAL HEALTH FOUNDATION

DR. ANNE S. BASSETT

Dr. Deborah Sidenberg

Queen Street Mental Health Centre
Clarke Institute of Psychiatry
Genetic Linkage Analysis of Schizophrenia in Canadian Families: Ontario Pilot Project
The hypothesis underlying this study is that a single major gene, or a limited number of genes, predispose individuals to suffer from schizophrenia. The hypothesis will be tested by examining members in families where it is known that at least two members are affected by the disease. Family members will be interviewed and will provide a blood sample; DNA will be extracted from blood cells and immortalized for subsequent molecular genetic studies.

DR. RONALD BELL

Royal Ottawa Hospital
A Pilot Study of the Effects of Training in Psychiatric Rehabilitation Skills on Patient Quality of Life and Measures of Interagency Co-operation
This investigation is a pilot study of the effects of psychiatric rehabilitation. The project will combine the efforts of 10 agencies providing services to psychiatrically disabled persons so that they can develop a common form of describing the outcome of their services. Once a common method of describing what has been done by the agencies is developed it will be possible to assess outcome against a control group who are not served by the agencies. The aim is to decide if a community action system focused on psychiatric rehabilitation can improve the quality of life of people who suffer from psychiatric disorders.

DR. DIANE BENOIT

Queen's University
Intergenerational Transmission of Attachment
Dr. Benoit will examine patterns of attachment formation across three generations. The method is to examine the formation of attachments between mothers and their newborn children. Methods describing attachments are now available and are known to give reliable results. In addition, an examination will be made of the attachment between the mothers of the infants and their mothers (the grandmothers) in order to find out if the formation of attachments in the previous generation is an important factor in controlling of the formation of attachment in the current generation.

DR. SANDRA BLACK

Sunnybrook Health Science Centre
Attention Deficits After Hemisphere Stroke: A Prospective Behavioural - Neuroimaging Correlation Study of the Neglect Syndrome
The Neglect Syndrome is found in patients following brain lesions; in unilateral neglect, for example, patients may have difficulty in responding to stimuli on their left-hand side when the brain lesion is on the right. This study is designed to find out more about the basis of the Neglect Syndrome and to try to establish to what extent it is due to a decreased overall arousal level or whether it is due to a bias in the way in which people can direct attention to different parts of the environment. This study is based upon both behavioural investigations and upon studies of blood flow in the brain.

DR. GREGORY H. BROWN

McMaster University
Tryptophan Depletion as a Probe for Serotonin Responsibility
This investigation is a preparatory study for an examination of changes in brain serotonin (which is thought to be important in depression, suicide, aggression and obsessive compulsive disorder). A group of normal subjects will take a diet deficient in tryptophan. These subjects will subsequently be given blood tests; the aim is to make possible a series of uniform measures which can be correlated with physiological alterations. Such a technique can be used to assess the status of patients who have any of the disorders thought to depend upon the functional integrity of brain serotonin systems.

DR. RAMONA R. CARBOTTE

McMaster University
Studies of Brain Functioning in Lupus Patients Without Major Neurological Symptoms
Psychoneuroimmunology is an emerging field which combines research from different disciplines. Attention is directed to the relations between function of the central nervous system and the immune system. This study has focused on the effects of a particular immune disorder systemic lupus erthymetosis, to show what effects it has on the functioning of the central nervous system as indexed by changes in cognitive status.

DR. PETER CARLEN

Dr. Howard M. Kern

Addiction Research Foundation
Prevalence of Dementia and its Relation to Alcoholism in an Institutionalized Population in Nipissing District
This investigation will include all the institutionalized residents in a district of Northern Ontario. Two major objectives are in view: (1) the determination of the prevalence of dementia in an institutionalized rural population with a specific focus on the relation between dementia and alcohol use, and (2) to investigate the association of excessive alcohol use in interaction with dementia. It is thought that alcohol use is an important factor in psychiatric disorders and this study is aimed particularly at a rural elderly population who are liable to suffer from dementia.

DR. PETER CARLEN

Toronto Western Hospital

Altered Sedative-Hypnotic Drug Responses and Excitable Membrane Properties of Neurons from Aged Compared to Younger Mature Rats

Increased life expectation has increased the number of individuals above the age of 65. The older population uses sedative-hypnotic drugs and demonstrates responses to these drugs which differ from those found in younger groups. The aim of this investigation is to examine, in an animal model, the neurobiological basis of age-related drug phenomena – particularly pharmacodynamic changes – which can be attributed to alterations in neurotransmitters and cell membrane properties in aged systems.

DR. PATRICIA CHANG

McMaster University

Cloning of a Gene Associated with Neurodegeneration

Dr. Chang has isolated the cause of a disorder which can produce severe neurodegeneration in children: deficiency in a particular substance – arylsulfatase – A. She has also observed that not all individuals with the deficiency suffer from the disorder. Her investigation is designed to investigate what factors prevent some individuals who have the deficiency from exhibiting the disease and which factors permit the disease to flourish in others. Her hypothesis is that there is a genetic basis for the occurrence of the disorder and that some individuals have a genetic system which provides them with protection.

DR. DONNA CILISKA

McMaster University

Randomized Trial of Dieting Versus Non-Dieting

Many individuals diet. It is known that most weight-loss diets are successful only for a short-term and dieting is one of the factors which predispose people to develop eating disorders. This investigation will examine a non-dieting psychoeducational intervention to control weight and attempts to answer the question, "Does dieting do more harm than good?" Can a non-dieting intervention be more effective, over the long-term, for obese women and can it avoid other health problems? This investigation will use measures of self-esteem, depression, body dissatisfaction as well as physiological measures of weight, blood pressure and blood lipids.

DR. EVAN J. COLLINS

Dr. G. Awad

Queen Street Mental Health Centre

A Randomized Controlled Trial of a Low Dose Neuroleptic Strategy in Patients with Treated Refractory Schizophrenia

One third of patients who suffer from schizophrenia do not respond well to drug treatments and remain disabled by chronic symptoms. Very often patients are given trials of high doses of drugs in a attempt to overcome the lack of response. Typically these high drug doses produce little change in symptoms and, because these drugs may have significant adverse effects, the use of high doses must cause concern. This investigation is an attempt to find out if patients who are refractory will respond to gradual dose reduction and maintenance on low doses with a consequent improvement in both psychotic and behavioural symptoms with as well a reduction in the adverse drug effects.

DR. JACK C. DE LA TORRE

University of Ottawa

Regional Neuronal Metabolism and Behavioural Changes After Chronic Brain Ischemia

Dementia in humans leads to loss of abilities – particularly memory and cognition – severe enough to interfere with the activities of daily life. The two most common dementias are Alzheimer's disease and multi-infarct dementia; the latter disorder is treatable. This investigation looks into the changes which take place in the brains of rats who have had an ischemia of the multi-infarct type induced in their brains. The investigation uses imaging and neurochemical techniques to find out what changes take place in the ischemic brain and to find out how the changes are correlated with changes in performance. The aim is to arrive at a better understanding of multi-infarct dementia in an animal model with the idea of improving its treatment in patients.

DR. JO-ANNE K. FINEGAN

Hospital for Sick Children

The Development of a Measure of Difficult Temperament in The School-Age Child

In recent years investigators have paid attention to the genesis of "temperament" and "personality" in young children. They try to track the path from early temperamental differences to behaviour disorders and psychiatric disorder in later life. At present there are few good instruments for measuring temperament in young children. This investigation will develop a measure of "difficult" temperament in the school-age child which can be used as a basis for subsequent research.

DR. SUSAN GOLDBERG

Hospital for Sick Children

Studies in Developmental Psychopathology: Attachment and Behaviour Program in High Risk Populations

Many psychiatrists and psychologists believe that mother-child relations in early life are a major influence in determining a child's vulnerability to behaviour disorders. The experimental support for this widespread belief is still equivocal. This investigation builds on a longitudinal study of two groups of children at risk for subsequent behaviour disorders (children with cystic fibrosis; children with congenital heart disease). The investigation is designed to find out if either early difficulties or attachment formation can be unequivocally related to behavioural problems later in life.

DR. SUSAN GOLDBERG

Hospital for Sick Children

Social Functioning of Preschoolers with Congenital Heart Disease

This investigation follows of a group of children with congenital heart disease and compares them with healthy control children. The index children were first seen when their heart disease was detected. The purpose of this phase of the study is to assess the predictive utility of early measures of infant health and temperament, parent stress and infant mother-attachment in relation to social competency and the development of problems at two to three years of age. The identification of predictors of behaviour problems in this population, which is at high risk for developing disorders of conduct, is intended to guide appropriate support and intervention so as to improve outcomes.

DR. SUSAN GOLDBERG

Hospital for Sick Children

Severity of Congenital Heart Disease and Early Development

The purpose of this investigation is to examine the effects of severity of illness on the psychosocial development in the first years of life of infants who have congenital heart disease. Medical measures of severity of illness are established from the clinical record and different groups will be followed to find out it severity of the illness is related to mental and motor development and to compare ratings of home interactions and attachment in children with differing orders of severity. It is not yet clear if severity of illness is an important factor in accounting for the high rates of the behavioural and academic problems which are seen in these children when they get into school.

DR. MARK H. HANDLEY-BERRY

Queen's University

School Achievement at Age 9-10 Years of a Selected Population of Children at Risk in the Perinatal Period

The purpose of this investigation is to establish the value for predicting academic achievement in children age nine and 10 of data about fetal and newborn complications, motor and cognitive deficits at one year of age and motor and cognitive and language deficits at four years of age and measures of the home environment made at both one and four years of age. The aim of the study is to find out more about the role in which factors in very early life contribute to school difficulties. The children form part of a cohort first seen at Kingston nearly a decade ago; some were low birth weight as infants and the remainder are healthy controls.

DR. WALTER R. HEINRICHS

York University

Cognitive Predictors of Employability and Social Adjustment in Chronic Psychiatric Patients

Dr. Heinrichs seeks to understand how difficulties of cognition influence the rehabilitation and adjustment of severely disturbed psychiatric patients. The study is based upon 200 patients who are undergoing rehabilitation following discharge from a provincial psychiatric hospital. The patients are given an extensive battery of psychological tests; the outcome measures will be measures of employability and adjustment following discharge from the hospital.

DR. JEANNETTE J.A. HOLDEN

Queen's University

The Use of DNA Markers in Carrier Assessment of The Fragile-X Syndrome and Other Forms of X-linked Mental Retardation

X-linked mental retardation effects about one in every 500 males; about one in 200 females have a 50% chance of being carriers for the disorder and about one-third of this group are known to have a disorder called the "Fragile-X Syndrome". The objective of the investigation is to find ways in which reliable determinations of the carrier status of females at risk of the disorder can be made and also to find ways of making a prenatal diagnosis of the syndrome. The aim of the investigation is to improve the knowledge available to genetic counsellors and, in the long run, to prevent the occurrence of individuals who have X-linked forms of mental retardation.

DR. PAVEL D. HRDINA

University of Ottawa

Prospective Dosing and Plasma Level – Clinical Effect Relationship of Antidepressants

The objective of the investigation is to determine, in a population of outpatients with unipolar endogenous depression, if there is a significant correlation between steady blood levels of the antidepressant drugs they have been given and clinical response. The drugs under examination, doxepin and imipramine, are widely used in the treatment of depression, yet there is not sufficient knowledge about the blood levels of the drugs required in order to arrive at a satisfactory clinical outcome. The investigators will use prospective dosing strategies to devise a regimen that will bring individual patients into the desired therapeutic range sooner than current trial and error methods.

DR. RUSSELL T. JOFFE

Dr. Josepth J. Regan

Toronto General Hospital

Personality and Depression

Several hypotheses have been proposed to explain the relations between personality and depression; none of them are thought to do the facts justice and studies of the topic have run into substantial problems of method. This investigation aims to assess the effect of depressed mood on a wide range of personality measures. The chief aim is to avoid the difficulty of method which has arisen in other cases. In addition, the study will examine the changes that take place in personality when depression is successfully treated; the new step in investigation is to anticipate changes in disorder linked to changes in personality measures.

DR. SIDNEY H. KENNEDY

Dr. Gregory Brown

Toronto General Hospital

Melatonin Response to Noradrenergic Challenge Tests

Melatonin, a substance secreted in the brain, is known to be related to an important set of neurotransmitter terminals in the pineal gland. In this investigation the secretion of melatonin and its effects will be examined in a group of normal subjects whose neurochemical responses will be seen in response to chemical challenges known to alter the balance of neurochemicals in the body. Once normal function is more clearly understood it will be possible to examine the function of melatonin, and the neurotransmitters with which it is associated, in patients – particularly those with a depressive disorder.

DR. BETTY ANN LEVY

McMaster University

The Training and Generalization of Reading Related Skills

The purpose of the proposed research is to investigate, along lines that have already been started, two remedial techniques that successfully increase word naming speed and the text reading rate of poor readers in primary school classes. So far the techniques have been successful in producing training benefits in the laboratory; the investigation is now being carried further to see if the effects which are produced will generalize beyond the laboratory. These investigations will be of importance if it can be shown that they will lead to methods by which teachers can train children in regular schools.

DR. PETER P. LI

Clarke Institute of Psychiatry

Studies on the Effect of Lithium on CNS Phosphoinositide Second Messenger System

The primary goal of this study is to explore intensively the interaction of lithium and a "biochemical cascade" of signalling drugs which it releases when it is given to patients as part of the treatment for bipolar affective disorders. By identifying the pharmacological effects of lithium on the phosphoinositide signalling pathway there is a possibility of developing new therapeutic agents which will improve the transfer process which seems to be important in the treatment of manic-depressive disorder.

DR. MAUREEN W. LOVETT

Hospital for Sick Children

Training and Transfer Effects in Dyslexic Children's Response to Remedial Treatment

This investigation is aimed at establishing what constitutes effective treatment for specific reading disability; this disorder is estimated to affect 11% of boys and 3% of girls, even when they are of average or above average intelligence. Developmental reading disability can be a lifelong disorder and is associated with an increased risk for adult problems in both occupation and emotions. The investigation is designed to address the factors which influence improvement in reading demonstrated in laboratory investigations. One factor which has been disappointing in the previous investigations is that improvement seen in the laboratory does not generalize beyond the experimental situation; it is therefore important to find out how improvement in children's reading scales can be generalized so that they can be available for classroom use.

DR. PETER L. MARTON

Sunnybrook Health Science Centre
Persistence of Deficits in Social Skills, Peer Networks and Friendship Quality in Clinically Depressed Adolescents
Depressive disorders are a serious health problem in adolescents. They may affect as many as 30% of adolescent psychiatric outpatients and are known to be associated with significant disturbances in adolescent adaption to school and family. Little is known about the correlates of these disorders and this investigation is designed to find out more about the psychological deficits which are specific to the depressed adolescent, and, in particular, to find out if any persist after the remission of the depression itself. The results will contribute to the clinical assessment of depressed adolescents and to their treatment by clarifying the significance of psychosocial disturbance (which often is what draws attention to the disturbed adolescent) and by providing better directions for treatment.

DR. MICHAEL F. MAZUREK

McMaster University
The Neurochemistry of Dementia: Beyond The Cholinergic Hypothesis
Much of the current research effort on Alzheimer's disease is centered on the "cholinergic hypothesis" which supposes that Alzheimer's dementia is related to a depletion of the cholinergic system in the cerebral cortex. However, it is now known that other patients with a particular kind of brain defect (olivopontocerebellar atrophy) also have a reduction in cortical cholinergic markers like that found in Alzheimer's disease but they do not suffer from the profound mental impairment seen in Alzheimer's disease. This finding challenges much of current thinking about Alzheimer's disease. Dr. Mazurek will examine in detail the pattern of neurochemical pathology associated with non-dementing illness in order to compare it with a pattern of abnormalities found in the dementing disorders.

DR. DONALD R. MCLACHLAN

Dr. Peter St. George-Hyslop

University of Toronto
Molecular Studies in Alzheimer's Disease
The purpose of this study is to pinpoint the mutation in chromosome 21 which may be responsible for the familial form of Alzheimer's disease. This study will identify and collect pedigrees which show the familial form and then examine the features of chromosome 21 collected from blood cells from family members. The aim will be to isolate and characterize the chromosome breakpoints in members of families with a pedigree illustrative of the disease. Characterization of the familial Alzheimer's disease gene would facilitate genetic counselling and also would specifically find the primary biochemical defect in Alzheimer's disease – a step which is necessary in order to develop an effective prevention or treatment.

DR. RAM K. MISHRA

McMaster University
Studies on the Interaction of a Hypothalamic Factor (L-Prolyl-L-Leucyl-Glycinamide) with Biogenic Amine Receptors in CNS
This investigation is to gain a better understanding of the way in which the melanocyte-stimulating hormone inhibiting factor identified as L-prolyl-L-leucyl-glycinamide modulates dopamine (D1 and D2) receptors. The results of this study will not only further our knowledge of basic neuronal control mechanisms, but will have direct implications for the therapy of neurological disorders (such as tardive dyskinesia and Parkinsonism) and relapse pyschosis of schizophrenia. The neurochemical systems which are being examined are known to be involved in all of these diseases.

DR. THOMAS P. MORLEY

Banting Institute
Canadian Brain Tissue Bank
The Canadian Brain Tissue Bank is an important research resource for Canadian neuroscientists. The staff of the Bank collect brain tissue at autopsy from individuals who are known to have suffered from psychiatric and neurological diseases. The tissue is carefully examined, dissected and stored. Investigators who require particular kinds of tissue representative of the diseases known to have existed in individuals can obtain it from the bank. History taking, anatomical dissection and chemical preparation are important in maintaining the Brain Tissue Bank as a resource for neuroscientists.

DR. LENNARD P. NILES

McMaster University
Brain Target Sites for Melatonin and N-Acetyl-5-Methoxy Kynurenamine: Modulation of Gabaergic Function and Cyclic Nucleotide Synthesis
The pineal gland, through the agency of melatonin and other hormones, influences brain homeostasis, neurotransmitter function and eventually behaviour. The importance of this gland as a factor in causing abnormal central neurotransmission in mental illness is not well understood but it is possible that aberrant pineal activity is involved in the origin of a number of mental disorders. This project is aimed at elucidating the biochemical mechanisms which underline pineal-brain interaction, the physiological significance of this interaction and its implications in the aetiology and treatment of mental dysfunction and more particularly, disorders of affect and mood.

DR. DAVID R. PEDERSON

University of Western Ontario

Antecedents of Attachment Security

There is abundant evidence that attachment security is a central factor in the mental health of the infant and the young child. Data on maternal stress and on social support given to mothers which may influence the formation of attachments is needed to provide specific information about the way in which stress and support influence attachment. The goal of family-centered neonatal care is to facilitate the family's adjustment to stresses associated with a new baby. This investigation is designed to find out more about family stress and the response of families to distress and the way in which they influence the adjustment of small infants.

DR. DEBRA J. PEPLER

York University

Social Skills Training With Aggressive Children: An Investigation of Behavioural Change

This study is being conducted by a social skills group. Aggressive children are given three different kinds of training; social skills training, parent training, and classroom contacts. In previous studies, the behaviour of the children, as assessed by teachers improved, but the children's behaviour as assessed by peers did not. The study now extends the research by directly investigating changes of behaviour in the playground and examining how the training influences children when they are not under supervision. Changes in aggressive and disruptive behaviours are observed by the social skills group in the classroom and with peers on the playground. The objective is to find ways of improving training of socially aggressive children so they can get on better with their comrades and find out how the skills they learn in the classroom can be generalized to the playground.

DR. GARY RODIN

Dr. C. Littlefield

Toronto General Hospital

Predicting Adjustment and Psychosocial Morbidity in Patients

This investigation comprises two studies. The first is designed to further our understanding of how people adapt to chronic illness; the aim is to determine the contribution to the adjustment of the individual to such things as previous personality, the severity of the disease and factors which are found in current circumstances, for example, social support, marital functioning and family involvement. The second part of the study aims to improve the prediction of the occurrence of depression in patients by examining the role of these factors and by observing their predictive utility in a sample of 100 patients with end-stage renal disease. This study will be a contribution to the extent to which psychiatric disorder contributes to the overall health of patients with other disorders.

DR. KENNETH H. RUBIN

University of Waterloo

The Waterloo Longitudinal Project: An Adolescent Follow-up

The main purpose of this study is to examine the long-term outcome of social withdrawal, aggression and peer rejection in early and middle childhood. A group of children was observed during play to find out the extent to which they exhibited aggression, their social competence and if they withdrew from contacts with other children. The study makes a contrast between internalizing disorders, such as anxiety, and externalizing disorders, such as aggressive behaviour. The aim is to find out ways of predicting which of these two disorders are more likely to be associated with items that one can measure in early childhood.

DR. PHILIP SEEMAN

University of Toronto

Dopamine Receptors in Schizophrenia: A Program Approach

Dr. Seeman is carrying out a systematic examination of one of the major theories for the disorder schizophrenia. Of the theories put forward to explain schizophrenia a substantial body of evidence now suggests that an abnormal brain function to do with the neurotransmitter dopamine is important. The hypothesis which Dr. Seeman is examining proposes that there may be an abnormality in brain dopamine D1 and D2 receptors. He is examining this proposal in a number of ways, for example, to see if there is a change in the D1/D2 ratio or to find out if there is an abnormal function of the D2 receptor.

DR. BRIAN F. SHAW

Toronto General Hospital

Social Phobia: Comorbidity, Treatment and Prevention of Impairment

The research seeks to describe individuals who have a disorder known as social phobia. The description aims to analyze a number of psychopathological dimensions of the disorder and to determine whether cognitive behavioural group treatment is effective; in addition, the experiment is designed to find out if one can ascertain in advance of treatment which patients are likely to benefit most.

DR. LINDA S. SIEGEL

Ontario Institute for Studies in Education

Early Identification of Learning Disabilities Using Brainstem Auditory Evoked Responses, Perinatal and Demographic Factors

This study will examine the hypothesis that children who are at risk for learning difficulties at school can be recognized early in life by examining their medical history, audiological and neurological data, as well as early linguistic and cognitive evaluations. A population of children aged between five and seven who are at risk for later language and learning difficulties will be followed to see how they fare when they get into school. Early identification of such children will significantly reduce the later behavioural and emotional difficulties which these children and their families face.

DR. D. SILVER

Mount Sinai Hospital
The Long-Term Follow-up and Natural History of Borderline Patients
A diagnosis which is hard to make, and which has unclear consequences, is borderline personality disorder. These patients are among the most difficult and intractable that confront physicians today. Until recently there had been little research in the long-term course and outcome of this disease. It was unclear, for example, if they developed more serious disorders such as schizophrenia or if they "burned out". This investigation follows a group of patients with the disorder to find out the natural history of patients for whom this diagnosis is made.

DR. ALEXANDER J. STOESSL

St. Joseph's Hospital (London)
Peptide-Dopamine Interactions in Aging and Tardive Dyskinesia
The general objective of this investigation is to obtain a better understanding of neurochemical function in the nervous system – particularly to do with the dopamine system – in patients who are given drugs for the treatment of psychotic disorders. In some cases the drugs produce side-effects which are manifested as disorders of movement. These side-effects are serious and important in considering whether treatment should be prolonged. The investigation is designed to find out what the neurochemical mechanisms are which lead to the movement disorders found in patients treated with long-term neuroleptic drugs.

DR. DONALD T. STUSS

Rotman Research Institute
Frontal Lobe Function
This investigation comprises three studies of the psychological disorders that follow from lesions of the frontal lobe. The studies investigate, first, the ability of patients with these lesions to monitor their own behaviour; second, the ability of these patients to monitor their own choices, self-control and impulsiveness (using a risk-taking or gambling investigation); and third, patients are administered reaction time tasks in circumstances under which different background distractions are offered. It is expected that patients with the lesions will be significantly slower than other groups as distraction increases. The aim of the investigation is to find out the precise nature of the cognitive changes that occur in patients with frontal lobe lesions.

DR. DONALD T. STUSS

Rotman Research Institute
Frontal Lobe Functions
The objectives of this proposal are to advance theoretical knowledge of the role of the prefrontal lobes and provide details which are necessary to improve the rehabilitation effort that is put into patients with lesions of the frontal lobes. The specific investigations are designed to show the effects of frontal lobe damage on attention and memory. The frontal lobes are known to be particularly concerned with high mental functions and damage of these areas, which often occurs in traumatic injuries, may have consequences for an individual. It is important that rehabilitation be based upon a clear understanding of changes produced by frontal lobe lesions.

DR. BRENDA B. TONER

Clarke Institute of Psychiatry
Cognitive-Behavioural Group Therapy for Irritable Bowel Syndrome
The irritable bowel syndrome is prevalent, chronic, and debilitating; it has substantial cost implications for the health care system. The importance of psychological factors in the development and maintenance of the syndrome has been well documented but to date specific psychological treatments have not been evaluated in controlled trials. The main aim of this study is to evaluate the effect of a psychological therapy when it is compared with i) a matched condition in which the patients are given attention and ii) in comparison with conventional medical therapy. The investigation is a controlled trial of psychological treatments for what, up to now, has been thought of as a somatic disorder.

DR. D. BLAKE WOODSIDE

Toronto General Hospital
Familial Transmission of Eating Disorders
This investigation seeks to elucidate possible genetic mechanisms underlying anorexia and bulimia. The first phase of the study is to collect family data or pedigrees in which there are individuals with an eating disorder. It will be necessary to select families that are informative for genetic linkage by carrying out detailed examination of the presence or absence of eating disorders in family members. Families identified as informative for ultimate linkage analysis will be recruited from an initial screen. They will be studied for the presence of the disorder in the family, and cells suitable for later chromosome studies will be obtained and preserved.

INDEX OF RESEARCH KEYWORDS

abdomen ... 12
addiction services ... 51
addiction treatment ... 29, 55
administration ... 24, 33
AIDS ... 12, 27, 28, 29, 30, 33, 34, 55
alcohol abuse ... 51, 52, 53, 54, 55, 56, 59
anaesthesia ... 32
ankle ... 44
arthritis ... 8, 14, 15, 30, 34
asthma ... 28
bone ... 13
brain ... 8,11, 27, 28, 29, 30, 31, 32, 33, 34, 35, 59, 60, 62, 63, 64, 65
breast disease ... 7, 10, 29, 35
campylobacter ... 36
cancer ... 7, 9, 10, 14, 27, 28, 29, 31, 33, 35
cardiac arrest ... 43
cardiovascular ... 11, 23, 27, 28, 29, 30, 31, 32, 33, 35, 60, 61
CAT ... 14
children's health ... 7, 8, 9, 10, 11, 23, 27, 30, 31, 32, 33, 34, 35, 44, 51, 53, 54, 56, 60, 61, 62, 63, 64
chiropractic ... 15
chlamydia ... 13
cholesterol ... 7, 8
Chron's disease ... 9
chronic fatigue syndrome ... 34
communication disorders ... 11, 23, 35, 36
community health ... 7, 11, 23, 29, 30, 34, 35, 56
competency ... 12
congenital anomalies ... 8, 10
cystic fibrosis ... 28, 61
decision-making ... 10,12, 15, 24, 31, 32, 35
dementia ... 7, 8, 27, 29, 30, 32, 35, 36, 59, 60, 63
depression ... 29, 34, 59, 60, 62, 63, 64
diabetes ... 14, 28, 34
diet ... 7, 8, 9, 27, 28, 29, 35, 60
disability ... 8, 12, 23, 27, 30, 31, 36
drug abuse ... 51, 52, 53, 54, 55, 56
drug abuse prevention ... 53, 56
drug prescribing ... 54, 56
drug therapy ... 10, 11, 27, 30, 33, 34, 60, 62, 65
eating disorders ... 65
economics ... 15, 30, 31, 32
elderly ... 7, 12, 13, 23, 29, 30, 32, 33, 34, 35, 36, 59, 60, 65
emergency care ... 27, 43, 44, 52
environmental health ... 9, 10, 12, 29
epilepsy ... 7, 30, 34
ethics ... 24
exercise ... 11, 13, 14, 32, 36
eye ... 9, 31
family health ... 7, 8, 11, 23, 31, 33, 55, 59, 64
food sensitivity ... 12
francophone ... 54
gall bladder ... 30
gastrointestinal ... 11, 27, 30, 33, 34, 36, 65
genetics ... 27, 28, 29, 31, 32, 35, 59, 60, 61, 63, 65
haemochromatosis ... 27
head and neck ... 27
health promotion ... 7, 11, 12, 23, 36, 55, 56
health service organizations ... 15, 32
hemophilia ... 31, 36
human resources ... 7, 8, 15, 30, 56
Huntington's ... 32
hypertension ... 11, 14, 31
immune system ... 27, 33, 34
independent living ... 12, 13, 27, 31
infectious disease ... 12, 33
kidney ... 14, 27, 31, 32 ,34 64
knee ... 14
learning disability ... 8, 61, 62, 64
life support ... 43
lithotripsy ... 14
managed care ... 36, 55
mental health ... 23, 29, 30, 34, 59, 60
mental retardation ... 61
molecular biology ... 28, 29, 31, 32, 33
MRI ... 33
multiple sclerosis ... 28, 33
muscle ... 13, 27
native health ... 12
neglect syndrome ... 59
neonatal health ... 28, 30
neurodegeneration ... 60
neuromuscular disease ... 34
nursing ... 7, 11, 12, 24, 29, 30, 33, 34, 35
occupational health ... 8, 11, 29, 34, 51
pain ... 9, 14, 15, 27, 32, 36
Parkinson's disease ... 27, 29, 30, 34, 63
pharmacology ... 32, 33, 34
physiotherapy ... 28, 35
palliative care ... 7
pitituatory ... 29
psoriasis ... 8
psychosocial ... 7, 11, 30, 31, 33, 34, 59, 60, 61, 62, 63, 64, 65
rehabilitation ... 8, 13, 23, 27, 28, 30, 32, 35, 59, 61, 65
reproduction ... 14, 28, 29, 31, 36
resource allocation ... 24
respiratory disease ... 8, 27, 28, 29, 30
schizophrenia ... 27, 30, 32, 34, 36, 59, 60, 63, 64, 65
screening ... 8, 13, 14
sickle cell disease ... 33
skin disease ... 8, 33
SLE ... 29, 35, 59
sleep apnea ... 11, 27
smoking ... 52, 53, 54
spine ... 8, 15
sports medicine ... 30
surgery ... 11, 12, 31, 32, 34
technology assessment ... 11, 14, 15, 31, 33
teeth and gums ... 9, 32
thrombosis ... 36
thyroid ... 13, 35
transfusion ... 9
transplantation ... 9, 24, 30
trauma ... 11, 12, 27, 34, 36, 43, 53, 65
urinary tract ... 14, 32
uterus ... 31
utilization ... 15, 30, 31, 33
vaccination ... 7, 27, 28, 34
women's health ... 7, 10, 13, 14, 28, 29, 31, 34, 35, 51, 60
X-ray ... 15, 44